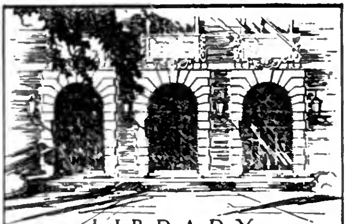

Bulletin 623

Performance of EXPERIMENTAL CORN HYBRIDS IN ILLINOIS 1957

LOCATION OF TEST FIELDS

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K. E. Williams, and A. J. Crowley, Jr.

NIVERSITY OF ILLINOIS · AGRICULTURAL EXPERIMENT STATION

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Acknowledgment is due W. T. Schwenk and Sons, Edwards, Illinois, and the Shawnee High School, Union county, Illinois, for providing land for two of the tests; to W. C. Jacob and Robert Seif for processing the data; to H. L. Portz, D. R. Browning, and E. Arnzin for conducting the Wolf Lake tests; and to L. H. Lindblom and H. M. Hoyes for aid in field and laboratory. Tests in DeKalb, Champaign, and Fayette counties were located on University of Illinois forms managed by R. E. Bell, C. H. Farnham, and P. E. Johnson.

PERFORMANCE OF EXPERIMENTAL CORN HYBRIDS IN ILLINOIS, 1957

By R. W. JUGENHEIMER, K. E. WILLIAMS, and A. J. CROWLEY, JR.[1]

ILLINOIS, the center of the corn belt, leads the surrounding states in corn yields per acre. During the ten years 1947-1956, Illinois farmers averaged 55 bushels per acre. These yields have resulted from the use of superior-performing hybrids and modern production practices by efficient seedsmen and farmers. The high yields have brought total production to the point where corn breeders now have the opportunity to reduce the emphasis on yield and to concentrate on developing inbred lines and hybrids that have improved standability, chemical composition, quality, machine harvestability, ear droppage, and resistance to such hazards as insects, diseases, cold, and drouth.

The development and evaluation of superior-performing hybrids is a gradual but continuing procedure. For example, Ill. 960 and Iowa 939 were widely grown in the early days of hybrid corn. These hybrid combinations were completely replaced by such hybrids as Ill. 21 and U.S. 13. These latter hybrids are now rapidly being supplanted by such hybrids as Ill. 1270, Ill. 1570, AES 702, and AES 805. In turn, some of the new experimental Illinois hybrids appear to be superior to these popular combinations.

Illinois hybrids continue to compare favorably with closed-pedigreed hybrids. This is to be expected, of course, since many hybrid seed producers have put out Illinois hybrids under different names or have modified them only slightly by substituting one or two inbred lines. Although many seedsmen use private codes on Illinois hybrids in order to conceal the pedigree of their hybrids, in 1957 some twenty hybrids were grown and certified under their original Illinois designations. Much of this certified seed was grown for sale at wholesale or in interstate commerce; a federal regulation prohibits the assignment of synonyms to corn hybrids used in interstate commerce.

This report summarizes the results of advanced tests of experimental corn hybrids conducted in 1957 by this Station. Data from many preliminary tests involving specialized phases of the corn-research program are not included in this bulletin.

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[1] R. W. JUGENHEIMER, Professor of Plant Genetics; K. E. WILLIAMS, Fieldman in Agronomy; and A. J. CROWLEY, JR., Research Assistant.

Trials were made at five locations: in DeKalb county in northern Illinois, in Peoria county in north-central Illinois, in Champaign county in central Illinois, in Fayette county in south-central Illinois, and in Union county in southern Illinois. These five locations are representative of the soil, rainfall, and length of growing season in their respective areas.

Hybrids were compared for grain yield, maturity, shelling percentage, standability, ear height and resistance to smut. Only hybrids of similar maturity were tested on the same field. A familiar hybrid whose maturity was considered the standard for the group is named in each table heading.

Since most of the hybrids whose performance is recorded here are not yet in commercial use, the information about them is of most value to producers of hybrid seed. The 1957 performance of hybrids available to farmers in commercial quantities is reported in Bulletin 622 of this Station.

MATERIAL TESTED

Double crosses for consideration of seedsmen. Three hundred and fifty-five different double-cross hybrids were grown at the five locations. Most of the 300 selected Illinois hybrids were developed by the senior author. The seed was produced by controlled hand-pollination.

The double-cross hybrids whose performance is shown in this report and the tables in which each appears are shown in Table 22, which also contains the pedigrees of the hybrids tested. In the pedigrees, the order of the single crosses and of the lines in the single crosses has no significance; it does not indicate which should be used as seed or pollen parent.

Illinois yellow hybrids are numbered consecutively below 2000 and above 3000. White hybrids are numbered in the 2000 series; these white hybrids are usually followed by the letter W. Hybrids that have performed well after regional testing in several corn-belt states have been designated AES (Agricultural Experiment Station) hybrids. Hybrids in the 600 series are similar to Illinois 1277 in maturity; those in the 700 series correspond in maturity to Illinois 21; those in the 800 series correspond to Illinois 1570; and those in the 900 series to Illinois 1851.

The letter A or B following an Illinois hybrid number indicates that the combination of inbred lines making up the hybrid has been rearranged or permuted. For example, if the original pedigree of an Illinois hybrid was (1 × 2) (3 × 4), the letter A following the num-

ber means that the hybrid was put together (1 × 3) (2 × 4), the letter B, (1 × 4) (2 ×3). A difference in reciprocals is not recognized in this method. When a short dash (–) followed by a number occurs as part of an Illinois hybrid number, it means that a tested related line has been substituted for one of the inbred lines included in the original hybrid.

The University of Illinois does not produce hybrid seed corn in commercial quantities. Hybrids that include new inbred lines may be produced under the "delayed-release" program adopted by the states in the corn belt. Multiplication of a new line is handled by the Station, and the production of single crosses in quantity is handled by the Illinois Seed Producers Association, Champaign, Illinois. If a new Illinois experimental hybrid gives satisfactory performance, the parental lines eventually are released for use by seedsmen.

In order to make the results of corn research more quickly available to the public, the University of Illinois has adopted a slight modification of the "delayed-release" policy as it pertains to Illinois-developed inbred lines. Inbred lines of corn developed by the University of Illinois may be released to the public when they have demonstrated superior combining ability for yield, standability, disease resistance, insect resistance, chemical composition, male sterility, or other characters. Such Illinois lines may form a part of a new hybrid or be used in other ways by corn breeders. Inbred lines of corn developed by others will not be released without their approval.

Hand-pollinated inbred seed of released lines will be available for a fee in packets containing 25 to 100 kernels. Releases will be announced annually on or about April 1. Inquiries may be addressed to the senior author, Agronomy Department, University of Illinois, Urbana, Illinois.

Hybrids for prediction studies. Five sets of single crosses, two sets of three-way crosses, one set of top crosses, and five sets of inbred lines differing in maturity were tested in 1957. The three-way crosses and top crosses (Tables 3, 12, and 20) are a part of the "uniform" tests conducted cooperatively by cornbelt states and the U. S. Department of Agriculture. Seed of the unreleased inbred lines involved in these crosses was contributed by the state or by the federal corn breeder who developed them. Single crosses and inbred lines whose performance is reported in Tables 4, 5, 7, 8, 13, 14, 15, 16, 18, 19, and 21 were developed by the Illinois Station and tested only in Illinois.

The following individuals are responsible at the present time for collecting seed of inbred lines, making the crosses, and distributing

crossed seed of the entries in the cooperative uniform tests: E. C. Rossman (Michigan), D. Linden (Minnesota), N. P. Neal (Wisconsin), and G. H. Stringfield (Ohio) — Table 3; J. H. Lonnquist (Nebraska), R. W. Jugenheimer (Illinois), and G. F. Sprague (Iowa) — Table 12; and W. R. Findley (Kansas), F. A. Loeffel (Kentucky), and M. S. Zuber (Missouri) — Table 20.

Performance of single-cross, three-way-cross, and top-cross hybrids is of interest to corn breeders, producers of hybrid seed corn, and farmers. Characteristics of single crosses such as yield, standability, and size, shape, and quality of seed definitely affect the practical production of hybrid seed corn. Some farmers are interested in growing single-cross and three-way-cross hybrids commercially because of their attractive appearance and extreme uniformity. Use of single-cross and three-way-cross data for the prediction of desirable double-cross combinations creates additional interest in the performance of single crosses and three-way crosses.

Prediction studies are an extremely valuable part of a research program. Methods are available to predict the performance of the better hybrid combinations without making and testing large numbers of undesirable crosses. For example, 1,225 single crosses and 690,900 double crosses are possible with 50 inbred lines. However, by using single-cross performance data, the corn breeder can predict which of the many possible double-cross combinations are likely to be most desirable. The following six single crosses can be made with four inbred lines: A × B, A × C, A × D, B × C, B × D, and C × D. The average performance of the four non-parental single crosses gives the predicted performance of a specific double-cross hybrid. For instance, the average yields of the four single crosses A × C, A × D, B × C, and B × D give the predicted yield of double cross (A × B) (C × D). The procedure in predicting acre yields and percentage of erect plants from single-cross data is shown on page 6 of Illinois Agricultural Experiment Station Bulletin 597.

Similar predictions can be made for other characteristics. Predicted hybrid combinations, however, should always be thoroughly tested under field conditions before being put into commercial production.

Three-way crosses also provide useful predictions of the performance of double-cross hybrids. A large number of inbred lines can be compared, and the method is especially valuable where a desirable seed-parent single cross is available for use as a tester. Three-way crosses provide information on specific hybrids and may often eliminate the

time and expense required for testing inbred lines in top crosses and single crosses. The procedure in predicting acre yields and percentage of erect plants from three-way-cross data is also shown on page 6 of Bulletin 597.

Top crosses are simple to produce and often are useful in early stages of a breeding program. For example, a single cross from the corn belt of the United States might contribute genes for high yield and standability, and an open-pollinated variety from Europe might contribute adaptation to local European conditions. Such top crosses might thus combine the desirable traits of the American single cross and the European open-pollinated variety. Most top crosses, however, are temporary expedients, which usually are eventually replaced by double crosses. Top crosses are useful also for evaluating the performance of inbred lines. They also provide a means of selecting promising open-pollinated varieties for use as source material for the development of inbred lines.

MEASURING PERFORMANCE

General information concerning the tests is given in Table 1.

Field plot design. Semi-balanced lattice designs were used to obtain the data reported in Tables 3, 4, 7, 12, 13, and 14. The data in Tables 5, 8, 15, 16, 19, and 20 were obtained in randomized blocks.

Table 1.—GENERAL INFORMATION: Tests of Illinois Experimental Corn Hybrids, 1957

County[a]	Section of state	Table number	Plants per hill	Date of—	
				Planting	Harvesting
DeKalb	Northern	2–5	4	May 7	Oct. 17
Peoria	North-Central	6–8	4	May 30	Oct. 29
Champaign	Central	9–10	4	June 5	Nov. 7
Champaign	Central	11–12	4	June 2	Nov. 4
Champaign	Central	13	4	May 8	Oct. 14
Champaign	Central	14	4	May 8	Oct. 11
Champaign	Central	15–16	4	May 8	Oct. 31
Fayette	South-Central	17	3	June 26	Nov. 16
Fayette	South-Central	18–19	3	June 26	Nov. 21
Union	Southern	20	4	May 2	Oct. 18

[a] The fields are located near the following cities and towns: in DeKalb county near DeKalb, in Peoria county near Peoria, in Champaign county near Urbana, in Fayette county near Brownstown, and in Union county near Wolf Lake.

Rectangular and simple lattice designs were used for the data reported in Tables 2, 6, 9, 10, 11, 17, and 18. Because of time limitations, the data from the rectangular and simple lattice designs were analyzed by the procedure normally used for randomized block designs.

Method of planting. All plots in these tests were planted, thinned, and harvested by hand in well-fertilized fields prepared in the usual way for corn. Individual plots were 2 × 5 hills in area. Six kernels were planted in hills spaced 40 inches apart. Hills were thinned to 4 plants at DeKalb, Peoria, Champaign, and Wolf Lake, and to 3 plants at Brownstown.

Acre grain yields. Acre yields are reported as shelled grain containing 15.5 percent moisture, the maximum allowable for No. 2 corn. Data from all plots are included in the report on yield. The only correction for imperfect stands was the following adjustment for missing hills:

$$\text{Ear weight in field} \times \left[1 + \left(\frac{\text{missing hills}}{\text{hills present}} \times .7\right)\right] = \text{adjusted ear weight}$$

This adjustment adds 0.7 percent of the average hill yield for each missing hill, and assumes that 0.3 percent is made up by the increased yield of surrounding hills.

Shelling percentage and moisture in grain. All ears from one replication of each entry of the double crosses, three-way crosses, and inbred lines were shelled immediately after harvest. Two replications of the single crosses were shelled. The percentage of moisture in the shelled grain was determined with a Steinlite moisture meter.

Stand. Counts of the number of missing hills and number of missing plots were made in late summer in each plot. The data are reported as percentage of a perfect stand. Yields were corrected for missing hills.

Ear height. Representative plants in each plot were measured to determine the distance in inches from the soil to the ear-bearing node.

Erect plants. Percentage of erect plants in each plot of each entry was determined by actual counts at the time of harvest. Stalks broken above the ear were not considered lodged. Stalks leaning less than 45 degrees were considered as erect.

Smutted plants. The number of smutted plants was recorded on all plots in late summer. These data are reported in the tables as percent of smutted plants.

RESULTS OF THE TESTS

Data obtained from the tests are summarized in Tables 2 to 21. Long-time averages are more reliable indexes of the performance of hybrids than a single year's result. The parts of the tables summarizing the results of two or three years therefore deserve the most weight when the results are studied.

Relative performance cannot be determined with absolute accuracy by any method of testing. Small differences between entries are seldom of any significance. In fact, small differences are to be expected among plots planted even with the same lot of seed. Variations in growing conditions such as soil fertility are reduced but not completely eliminated by replicating the same entry several times in the same test. Unavoidable variation may be determined by a mathematical procedure known as analysis of variance. From this procedure figures may be obtained that represent the range which differences between two entries must exceed before those entries can be considered significantly different. The method used to determine this range is called the "Multiple Range Test."[1] This method considers the number of entries that fall within the range as well as the variability of the test. Data shown in **boldface** were not statistically different from the best performance for that characteristic.

Double-cross hybrids that were high yielding and had excellent standability are indicated by heavy type in Table 22.

The following single crosses, three-way crosses, top crosses, and inbred lines were outstanding in performance in 1957:

Northern Illinois

Table 3A — W136A × (M14 × WF9), W20R × (M14 × WF9), R168 × (M14 × WF9), A257 × (M14 × WF9), MS111 × (M14 × WF9).

Table 3B — MS109 × (WF9 × Oh51A), B47 × (WF9 × Oh51A).

Table 4A — M14 × B14, R113 × B14, R165 × B14, L12 × Oh43, B14 × Oh43, B14 × W64A.

Table 5 — R172, W64A, Oh43, R168.

North-Central Illinois

Table 7A — Hy2 × B14, R109B × B14, R165 × B14, WF9 × B14, B14 × Oh28.

Table 8 — WF9, R168, B14, R172.

[1] "Multiple Range and Multiple F Tests," by D. B. Duncan in *Biometrics* 11 (1), 1-43. 1955.

Central Illinois

Table 12A — CI.31A × (Hy × WF9), Oh3F × (Hy × WF9), Oh4G × (Hy × WF9), Oh7N × (Hy × WF9), Oh7P × (Hy × WF9), R168 × (Hy × WF9).

Table 12B — B44 × (WF9 × 38-11), CI.31A × (WF9 × 38-11), Oh3F × (WF9 × 38-11), Oh4G × (WF9 × 38-11), R159 × (WF9 × 38-11), R168 × (WF9 × 38-11).

Table 13A — Hy2 × R71, Hy2 × R74, Hy2 × R127, Hy2 × WF9, R74 × WF9, R129 × WF9, R74 × R129.

Table 14A — R71 × R109B, R74 × R109B, R74 × R112, R74 × R168, R109B × R112, R109B × R114, R112 × R115, R114 × R168, R115 × R168.

Table 15 — R71, R74, 38-11, WF9, R168.

Table 16 — R74, R71, R109B, R113, R114.

South-Central Illinois

Table 18A — C103 × Hy2, C103 × R154, C103 × 38-11, Hy2 × 38-11.

Table 19 — R166, R168, C103.

Southern Illinois

Table 20A — Mo1979 × Mo. 804, Mo9108 × Mo. 804, Ks76-55 × Mo. 804, R159 × Mo. 804, R166 × Mo. 804, CI.90A × Mo. 804, NC220 × Mo. 804.

Results of tests with high-oil hybrids are given in Table 11. Illinois High-Oil hybrids 6052, 6062, 6021, and 6016 were rather outstanding in performance.

Table 2. — DOUBLE CROSSES OF ILLINOIS 1277 MATURITY
Tested in Northern Illinois, 1955-1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	A — Three-year averages, 1955-1957								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	Ill. 1555A	115	21	79	88	97	45	3	..
2	AES 702	114	23	77	90	98	49	7	..
3	Ill. 1863	113	23	78	93	98	40	2	..
4	Ill. 1864	113	21	78	91	96	41	2	..
5	Ill. 1936	113	23	77	92	98	45	2	..
6	Ill. 1281	112	22	79	89	99	42	2	..
7	Ill. 1861	111	21	79	83	96	43	1	..
8	Ill. 1862	111	23	79	91	99	39	2	..
9	ISP 2	111	24	77	87	98	44	2	..
10	Ill. 1277	110	23	79	86	99	44	2	..
11	Ill. 1375	110	22	79	86	97	39	1	..
12	Ill. 1575	109	24	77	91	98	45	2	..
13	Ill. 1091A	108	23	77	81	93	46	2	..
14	Ill. 1279	108	22	79	93	96	43	2	..
15	Ill. 1559B	108	23	76	92	97	43	3	..
16	Ill. 1280	107	23	78	85	97	43	2	..
17	Ill. 1866	107	23	78	92	97	40	1	..
18	Ill. 1289	105	23	75	95	98	40	2	..
19	Ohio K24	105	21	79	89	94	39	2	..
20	Ill. 1557	104	24	77	95	95	42	3	..
21	Ill. 1560A	104	23	78	97	97	44	3	..
22	AES 510	103	19	79	94	95	41	4	..
23	Ill. 1493	101	23	76	94	92	42	2	..
24	Ill. 2247W	101	24	77	89	97	46	2	..
25	AES 610	99	21	80	92	96	37	1	..
26	Ill. 101	97	22	78	85	91	42	3	..
27	Ill. 21	90	24	77	82	84	48	2	..
	Average	107	22	78	90	96	43	2	..
	B — Two-year averages, 1956-1957								
1	AES 702	126	22	76	98	97	45	0	0
2	Ill. 1864	125	20	79	97	98	42	0	0
3	Ill. 1863	122	22	78	97	99	42	0	2
4	Ill. 1956	122	22	78	95	98	46	0	0
5	Ill. 1960	122	20	79	100	98	45	0	0
6	Ill. 1961	122	19	78	99	98	46	0	0
7	Iowa 4757	122	20	80	92	98	44	0	1
8	ISP 2	122	23	78	87	98	45	0	2
9	Ill. 1281	121	22	78	92	100	44	0	0
10	Ill. 1575	120	23	78	94	98	45	0	0
11	Ill. 1861	120	20	80	90	96	44	0	3
12	Ill. 1862	120	23	78	99	100	40	0	2
13	Ill. 1936	120	22	78	96	98	46	0	0
14	Ill. 1952	120	20	78	97	98	44	0	1
15	Ill. 1957	120	20	78	99	98	44	0	2
16	Ill. 1958	120	19	80	96	95	46	0	0
17	Ind. 5409	120	20	79	94	98	41	0	1
18	Ill. 1277	119	23	79	94	99	44	0	1
19	Ill. 1555A	119	20	80	96	96	44	0	0
20	Ill. 1955	119	20	80	99	96	44	0	0
21	Ill. 1280	118	22	78	87	98	46	2	0
22	Ill. 1289	118	22	76	98	98	40	0	2
23	Ill. 1559B	118	22	76	98	96	43	0	0
24	Ill. 1953	118	20	78	98	98	40	0	2
25	Ill. 1962	118	20	78	98	98	46	0	1

(Table is continued on next page)

Table 2. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	B — Two-year averages, 1956-1957 — Concluded								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
26	Ill. 1963	118	20	78	98	98	42	0	0
27	Ill. 1091A	117	22	78	90	94	46	0	1
28	Iowa 4779	117	24	79	98	96	40	0	0
29	Ill. 1375	116	22	80	94	96	40	0	0
30	Ill. 1557	116	23	76	98	96	43	0	1
31	Ill. 1866	116	22	78	94	98	41	0	2
32	Mich. 52-25	116	21	80	99	95	38	0	2
33	Minn. CB4621	116	18	80	98	98	42	0	1
34	Ill. 1959	115	20	79	96	98	42	0	1
35	AES 510	114	18	80	98	96	40	0	1
36	Ill. 1279	114	21	79	96	96	44	0	2
37	Ill. 1560A	114	22	78	100	96	45	1	0
38	Ill. 1493	113	22	77	95	91	42	0	2
39	Minn. CB4603	112	20	79	100	98	44	0	2
40	Ill. 1902	111	23	78	80	91	44	0	2
41	Mich. 53-151	111	20	78	96	95	44	0	4
42	Ill. 1954	110	20	80	96	94	43	0	2
43	Ohio K24	110	20	79	94	96	40	0	2
44	AES 610	108	20	80	98	97	38	0	1
45	Ill. 2247W	108	23	77	96	95	46	1	0
46	Ill. 101	105	21	78	86	88	44	1	2
47	Ill. 21	98	23	78	85	78	46	2	2
	Average	117	21	78	95	96	43	0	1
	C — 1957 results (3 replications)								
1	Ill. 3007	137	24	80	99	92	49	0	0
2	Ill. 3009	132	22	78	99	98	44	0	3
3	Ill. 3152	129	27	78	98	99	42	0	3
4	Ill. 3043	128	27	79	100	96	44	0	1
5	Ind. 6225	128	22	78	99	99	46	0	1
6	AES 702	127	26	75	99	95	45	0	0
7	Ill. 1863	127	26	77	99	98	41	0	1
8	Ill. 1952	126	24	76	97	98	43	0	1
9	Ill. 3008	125	27	78	97	94	46	0	1
10	Ill. 3046	125	23	76	98	93	50	0	1
11	Ill. 1864	124	23	77	99	96	40	0	1
12	Ill. 1281	123	26	77	97	99	43	0	0
13	Ill. 1961	123	22	76	99	98	47	0	0
14	Ill. 1999	123	31	76	98	98	41	0	0
15	Ill. 1956	122	27	75	91	98	47	0	1
16	Ill. 1957	122	24	76	100	97	45	0	3
17	Ill. 1862	121	27	76	100	100	38	0	2
18	Ill. 1953	121	23	76	98	98	41	0	3
19	Ill. 1955	121	23	78	100	93	44	0	0
20	Ill. 1960	121	25	78	99	98	45	0	0
21	Ill. 3045	121	25	79	99	93	42	0	0
22	Ill. 1277	120	28	77	93	98	43	0	2
23	Ill. 1575	120	29	77	92	96	43	0	0
24	Ill. 1936	120	26	75	97	97	44	0	0
25	Ill. 3048	120	25	79	100	92	44	0	1
26	Ind. 5409	120	25	77	96	96	41	0	1
27	ISP 2	120	28	76	84	98	44	0	3
28	Ill. 1091A	119	26	77	95	95	45	0	1
29	Ill. 1963	119	24	76	98	95	41	0	0
30	Minn. CB4621	119	20	77	99	97	40	0	1
31	Ill. 1280	118	27	76	87	98	42	0	1
32	Ill. 1555A	118	23	77	96	93	45	0	1
33	Ill. 1958	118	23	78	98	91	47	0	0
34	Ill. 1959	118	25	77	99	98	43	0	2
35	Ill. 1279	117	25	77	96	97	45	0	3
36	Ill. 1375	117	26	77	94	94	41	0	0
37	Ill. 1962	117	24	77	98	97	47	0	2

(Table is concluded on next page)

Table 2. — Concluded

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
C — 1957 results (3 replications) — Concluded									
		bu.	perct.	perct.	perct.	perct.	in.	perct.	perct.
38	Ill. 1968	117	26	76	98	85	50	0	0
39	Ill. 1971	117	27	77	95	88	48	0	0
40	Ill. 1998	117	26	74	93	95	46	0	1
41	Ill. 3044	117	25	75	99	98	45	0	0
42	Iowa 4757	117	24	77	95	97	43	0	1
43	Ill. 1559B	116	26	74	99	94	43	0	0
44	Ill. 1970	116	28	77	91	88	47	0	0
45	Ill. 3047	116	25	77	98	88	43	0	0
46	AES 510	115	21	77	99	92	41	0	1
47	Ill. 1289	115	27	74	97	98	40	0	1
48	Ill. 1861	115	24	78	88	91	44	0	4
49	Mich. 52-25	115	25	79	99	94	40	0	3
50	Ill. 1560A	114	27	77	100	94	45	0	0
51	Iowa 4779	114	28	77	97	94	40	0	1
52	Minn. CB4603	114	23	77	100	95	43	0	4
53	Ill. 1966	113	28	73	94	92	49	0	1
54	Ill. 1866	111	26	76	94	97	39	0	2
55	Ill. 3006	111	24	77	98	95	41	0	2
56	Ill. 1557	110	27	74	99	92	43	0	2
57	Ill. 3016	110	30	74	95	93	44	0	2
58	Ill. 3057	108	27	77	97	97	45	0	0
59	Ill. 3005	107	25	74	97	93	42	0	2
60	Mich. 53-151	107	24	77	95	91	43	0	6
61	Ill. 1493	106	26	74	94	83	42	0	4
62	Ohio K24	106	24	76	96	92	38	0	4
63	AES 610	105	24	78	99	96	38	0	1
64	Ill. 1954	105	23	78	97	89	43	0	3
65	Mich. 54-70	105	26	78	99	88	39	0	1
66	Ill. 1969	104	30	77	100	82	46	0	0
67	Mich. 54-116	103	24	79	98	99	39	0	5
68	Ill. 1902	101	27	76	73	83	44	0	3
69	Ill. 2247W	98	28	74	100	92	45	0	1
70	Ill. 101	91	25	76	86	79	44	0	4
71	Ohio M15	85	24	76	95	76	46	0	1
72	Ill. 21	77	28	76	94	58	47	0	2
	Average	116	25	77	96	93	44	0	1

Table 3. — THREE-WAY, SINGLE, AND DOUBLE CROSSES OF ILLINOIS 1277 MATURITY

Tested in Northern Illinois, 1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut
	A — Inbred lines crossed with (M14 × WF9)							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	Oh26D	102	23	76	**99**	**95**	34	**0**
2	W136A	**107**	27	77	**97**	**94**	36	**1**
3	W202	**107**	26	74	**98**	**89**	36	8
4	W20R	**108**	25	74	**97**	**90**	38	**0**
5	R165	86	31	72	**94**	81	35	**2**
6	R168	**107**	26	77	**97**	**84**	38	**2**
7	R172	**100**	29	72	**97**	**90**	37	**1**
8	A257	**109**	26	73	**100**	**98**	35	**0**
9	A296	82	22	79	**96**	82	33	**2**
10	A568	**104**	24	78	**98**	**89**	36	**1**
11	A569	93	25	75	91	**89**	35	**0**
12	MS109	**106**	28	75	**98**	**94**	38	**1**
13	MS111	**119**	26	78	**98**	**92**	34	**2**
14	MS121	84	29	69	**92**	79	33	8
15	MS125	99	25	73	**98**	**88**	36	**3**
16	MS126	**104**	27	76	**99**	**84**	37	**1**
17	Iowa (Minn.Syn.1)	**105**	29	72	73	**87**	38	**1**
19	B47	**110**	24	77	85	**88**	40	**3**
20	Iowa (Minn.Syn.2)	97	29	74	**97**	**84**	36	**0**
	Average	102	26	75	95	88	36	2
	B — Inbred lines crossed with (WF9 × Oh51A)							
21	Oh26D	79	24	70	**96**	**89**	36	**1**
22	W136A	97	22	79	**92**	**91**	35	**1**
23	W202	**105**	25	77	**99**	**83**	38	**6**
24	W20R	**102**	29	73	**96**	**90**	37	**4**
25	R165	95	29	73	**95**	**85**	34	**0**
26	R168	**100**	24	77	**99**	83	39	**2**
27	R172	88	29	75	**98**	**86**	40	**2**
28	A257	99	27	74	**99**	**89**	35	**1**
29	A296	**105**	22	83	**93**	**89**	37	**4**
30	A568	**100**	24	77	**97**	**92**	36	**1**
31	A569	**103**	23	76	**97**	**87**	36	**1**
32	MS109	**113**	28	77	**99**	**97**	37	**1**
33	MS111	87	29	76	**98**	83	35	3
34	MS121	91	27	70	**96**	**88**	33	**1**
35	MS125	86	27	75	**97**	**85**	36	**1**
36	MS126	96	29	77	**96**	80	38	**1**
37	Iowa (Minn.Syn.1)	98	30	69	**94**	**89**	39	**1**
38	Iowa [(M14×A206)×Oh4C]	**107**	26	74	**92**	**92**	38	**2**
39	B47	**110**	24	78	**95**	**91**	39	**3**
40	Iowa (Minn.Syn.2)	91	31	74	**100**	**90**	35	6
	Average	98	26	75	96	88	37	2
	C — Single crosses							
41	M14×WF9	99	26	73	**99**	**88**	33	**0**
42	WF9×Oh51A	92	26	77	**98**	76	36	**2**
	Average	96	26	75	98	82	34	1
	D — Double crosses							
18	Ill. 3159	**120**	27	76	**98**	**95**	39	**2**
43	Ill. 1277	**120**	28	77	**93**	**93**	42	**2**
44	Ill. 1559B	**112**	30	75	**98**	**93**	35	**2**
45	Ill. 1969	**107**	29	74	**97**	**87**	41	**2**
49	AES 610	**104**	27	73	**99**	**97**	37	**2**
48	Ill. 3059	99	29	71	**97**	**92**	43	**1**
47	Ill. 3058	96	28	67	**100**	**93**	42	**0**
46	Ill. 3057	95	28	67	**95**	**94**	39	**2**
	Average	107	28	72	97	93	40	2

Table 4. — SINGLE AND DOUBLE CROSSES OF ILLINOIS 1277 MATURITY

Tested in Northern Illinois, 1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Mois-ture in grain	Shell-ing	Erect plants	Stand	Ear height	Smut
	A — Single crosses							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	M14×R113	108	28	78	98	94	33	0
2	M14×R165	91	29	80	56	81	38	0
3	M14×R168	114	24	77	93	94	37	0
4	M14×R172	114	25	77	100	96	39	0
5	M14×WF9	106	27	76	97	90	34	0
6	M14×L12	107	25	77	99	98	44	0
7	M14×B14	130	24	80	99	91	34	0
8	M14×Oh43	112	26	77	100	95	29	0
9	M14×W64A	101	26	77	100	95	33	7
12	R113×R165	110	29	74	77	91	42	0
13	R113×R168	104	25	74	99	93	42	1
14	R113×R172	100	28	64	100	99	43	1
15	R113×WF9	104	26	73	100	81	39	0
16	R113×L12	108	29	74	100	93	48	1
17	R113×B14	119	24	76	100	92	45	1
18	R113×Oh43	118	32	74	99	96	38	0
19	R113×W64A	98	26	71	99	95	38	1
23	R165×R168	101	26	75	88	85	43	0
24	R165×R172	107	30	75	94	97	44	1
25	R165×WF9	121	28	78	88	93	40	0
26	R165×L12	88	36	69	30	98	50	3
27	R165×B14	119	26	77	92	94	40	0
28	R165×Oh43	116	34	78	96	93	36	0
29	R165×W64A	103	30	75	74	93	36	1
34	R168×R172	73	27	72	98	99	40	0
35	R168×WF9	108	24	78	99	84	41	1
36	R168×L12	113	29	77	98	97	50	1
37	R168×B14	105	24	78	99	90	44	0
38	R168×Oh43	104	28	75	98	98	39	0
39	R168×W64A	98	23	72	99	95	38	2
45	R172×WF9	112	29	76	99	92	40	1
46	R172×L12	99	30	70	100	93	45	0
47	R172×B14	117	28	77	100	99	45	0
48	R172×Oh43	111	34	77	100	93	38	0
49	R172×W64A	106	27	79	100	94	38	0
56	WF9×L12	89	34	69	97	92	47	1
57	WF9×B14	113	25	78	100	83	42	0
58	WF9×Oh43	110	32	77	100	92	35	1
59	WF9×W64A	65	30	68	91	92	31	2
67	L12×B14	108	30	79	99	85	54	0
68	L12×Oh43	120	35	78	100	97	45	0
69	L12×W64A	112	29	75	94	96	44	3
78	B14×Oh43	134	31	77	100	97	37	0
79	B14×W64A	123	22	79	100	97	39	1
89	Oh43×W64A	117	26	77	100	95	30	1
	Average	107	28	75	94	93	40	1
	B — Double crosses							
91	Ill. 1277	121	28	78	96	95	41	1
93	Ill. 1863	113	33	76	99	94	35	1
90	AES 610	108	26	74	98	97	34	3
92	Ill. 1555A	107	23	79	94	84	42	1
	Average	112	28	77	97	92	38	2

Table 5. — INBRED LINES OF ILLINOIS 1277 MATURITY
Tested in Northern Illinois, 1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	R165	**48**	36	66	55	**94**	31	**1**
2	R172	**47**	29	78	**100**	**93**	33	**0**
3	W64A	**44**	23	67	**96**	**86**	**23**	**1**
4	Oh43	**41**	27	78	**100**	68	**24**	**0**
5	WF9	38	34	64	89	84	29	**2**
6	R168	35	21	62	**98**	**93**	36	**3**
7	M14	33	25	74	**94**	75	**24**	**1**
8	R113	27	25	49	**100**	77	**27**	**2**
9	B14	24	34	48	**99**	**91**	34	**0**
10	L12	20	40	56	**97**	66	36	**1**
	Average	36	29	64	93	83	30	1

Table 6. — DOUBLE CROSSES OF ILLINOIS 21 MATURITY
Tested in North-Central Illinois, 1955-1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	A — Three-year averages, 1955-1957								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	Ill. 274-1	105	20	81	84	96	44	0	..
2	Ill. 972A-1	105	21	79	85	97	44	1	..
3	AES 806	103	23	79	87	95	39	4	..
4	Ill. 1332	103	20	81	86	98	43	2	..
5	Ill. 1912	103	21	80	82	94	43	3	..
6	Ill. 1280	102	19	81	85	96	40	4	..
7	Ill. 1919	101	21	80	84	95	43	2	..
8	AES 805	100	22	78	88	95	41	2	..
9	Ill. 1760	100	22	79	83	96	39	3	..
10	Ill. 1916	100	20	80	82	93	44	3	..
11	Ill. 1511	99	21	80	86	96	44	2	..
12	Ill. 1570	99	21	78	82	96	44	2	..
13	Ill. 1875	99	22	78	89	91	45	6	..
14	Ill. 1575	98	21	80	85	97	38	5	..
15	Ill. 1831	98	22	80	90	95	37	1	..
16	Ill. 1913	98	20	81	82	93	43	5	..
17	Ill. 1917	98	21	80	76	91	44	2	..
18	Ill. 1868	95	22	79	95	93	39	2	..
19	Ill. 1819	94	19	80	84	89	39	1	..
20	Ill. 1863	94	20	81	95	94	34	1	..
21	AES 702	93	20	79	88	91	41	2	..
22	Ill. 1277	93	20	82	87	95	39	1	..
23	Ill. 21	92	21	81	86	95	41	1	..
24	Ill. 1555A	92	17	80	89	95	38	2	..
25	Iowa 4297	92	20	79	87	98	39	1	..
26	Ill. 1560A	91	18	82	91	96	38	1	..
27	Ill. 1814	90	22	79	94	91	37	1	..
28	Ill. 1873	90	20	78	92	94	37	2	..
29	Ill. 2247W	86	21	77	86	95	40	3	..
	Average	97	21	80	87	94	41	2	..
	B — Two-year averages, 1956-1957								
1	AES 805	125	20	81	84	96	46	1	2
2	Ill. 972A-1	125	18	81	82	97	49	1	2
3	Ill. 1971	124	18	84	83	99	46	0	2
4	Ill. 274-1	122	18	82	78	95	48	0	1
5	Ill. 1912	122	20	81	75	93	48	4	4
6	Ill. 1970	122	18	84	79	98	46	0	0
7	AES 806	120	21	80	85	93	43	4	1
8	Ill. 1280	119	17	82	78	96	45	6	3
9	Ill. 1332	119	18	82	84	98	48	2	1
10	Ill. 1511	119	18	82	80	96	49	3	0
11	Ill. 1575	119	18	82	82	97	42	6	2
12	Ill. 1760	119	19	81	76	95	44	3	7
13	Ill. 1570	118	19	80	76	96	48	3	3
14	Ill. 1919	118	20	81	78	93	48	2	4
15	Ill. 1921	118	21	80	93	92	46	1	1
16	Ill. 1928	118	22	80	88	94	50	2	4
17	Ill. 1968	118	18	82	83	92	48	0	1
18	Ill. 1972	118	18	83	82	97	46	0	3
19	Ill. 1973	118	19	82	76	97	46	1	2
20	Nebr. 1924	117	18	82	90	97	45	2	2
21	Ill. 1831	116	20	82	88	94	41	1	3
22	Ill. 1875	116	20	80	86	90	50	8	2
23	Ill. 1966	116	19	82	86	92	44	0	1
24	Ill. 1969	116	18	82	94	94	45	0	2
25	Ill. 1277	114	18	84	84	95	42	0	2

(Table is continued on next page)

Table 6. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	B — Two-year averages, 1956-1957 — Concluded								
		bu.	perct.	perct.	perct.	perct.	in.	perct.	perct.
26	Ill. 1916	114	18	81	75	92	50	4	3
27	Iowa 4809	114	18	80	95	94	43	1	1
28	Ill. 1913	113	18	82	75	92	48	6	0
29	Ill. 1922	113	22	80	88	92	46	1	0
30	Ill. 1819	112	18	82	78	86	44	0	1
31	Ill. 1868	112	20	81	94	94	42	1	1
32	Ill. 1926	112	19	80	82	94	46	5	0
33	Ill. 1930	112	24	80	88	88	48	2	2
34	AES 702	111	18	80	84	88	44	0	0
35	Ill. 21	111	18	83	81	93	45	0	2
36	Ill. 1917	111	20	81	68	92	50	3	4
37	Iowa 4297	110	18	82	84	99	44	0	2
38	Iowa 4879	110	18	80	96	90	42	2	1
39	Ill. 1863	109	18	82	94	94	38	1	2
40	Ill. 1560A	108	17	84	88	96	42	1	2
41	Ill. 1967	108	18	80	92	93	48	2	4
42	Ill. 1873	107	18	80	90	92	42	2	0
43	Ill. 1927	107	20	78	89	90	45	3	0
44	Ill. 1902	106	17	82	71	92	44	0	3
45	Ill. 1555A	104	15	80	86	92	42	2	2
46	Ill. 1814	104	20	82	92	90	40	1	1
47	Ill. 1936	104	18	81	91	91	42	1	1
48	Ill. 2247W	98	19	78	83	94	44	2	1
49	CB 4726A	92	18	82	92	94	38	1	2
	Average	114	19	81	84	94	45	2	2
	C — 1957 results (3 replications)								
1	Ill. 3026	127	23	79	85	96	36	0	0
2	Ill. 3027	127	22	80	74	98	40	0	0
3	Ill. 3040	127	20	79	59	97	46	0	1
4	Ill. 3042	127	23	77	92	87	44	0	0
5	Ill. 3033	126	19	79	74	98	38	0	3
6	Ill. 3023A	125	20	81	87	96	35	0	2
7	Ill. 3035	125	22	82	85	94	38	0	0
8	Ill. 3037	125	21	80	72	92	43	0	2
9	Ill. 1970	123	21	83	63	98	43	0	0
10	Ill. 3010	123	22	78	82	98	44	0	2
11	Iowa 4880	122	21	79	90	91	39	0	1
12	AES 805	121	23	78	79	93	43	0	2
13	Ill. 1332	121	21	79	76	99	43	0	1
14	Ill. 1971	121	22	82	71	98	43	0	1
15	Ill. 3032	121	20	78	89	95	39	0	2
16	Ill. 274-1	120	21	80	67	91	47	0	0
17	Ill. 972A-1	120	23	78	72	95	47	0	0
18	Ill. 3019	120	21	80	88	95	42	0	1
19	Ill. 3014	119	24	78	76	94	46	0	1
20	Ill. 3022	119	21	81	83	87	40	0	5
21	Ill. 3039	118	23	78	88	92	42	0	2
22	Ill. 1280	117	20	80	71	97	39	0	1
23	Ill. 1928	117	26	76	86	89	50	0	1
24	Ill. 3020	117	21	79	87	99	38	0	0
25	Ill. 3029	117	21	77	88	88	38	0	0
26	Ill. 1511	116	21	79	74	93	45	0	0
27	Ill. 3021	116	24	78	93	93	40	0	0
28	Ill. 21	115	23	80	79	88	44	0	1
29	Ill. 3012	115	23	79	75	91	42	0	3
30	Ill. 3017	115	23	79	91	95	39	0	3
31	Ill. 3160	115	22	80	92	94	40	0	1
32	Ill. 1575	114	20	80	71	94	38	0	1
33	Ill. 1760	114	22	79	69	92	39	0	4
34	Ill. 1973	114	23	79	64	95	45	0	3
35	Ill. 3043	114	20	81	92	93	41	0	0
36	Ill. 3030	113	24	78	95	96	39	0	0
37	Ill. 3034	113	22	80	82	91	36	0	1

(Table is concluded on next page)

Table 6. — Concluded

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	C — 1957 results (3 replications) — Concluded								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
38	Ill. 3169C	113	22	74	78	93	36	0	3
39	Ill. 1570	112	23	77	67	93	46	0	4
40	Ill. 3013	112	25	77	68	95	46	0	0
41	Ill. 3036	112	21	80	82	92	34	0	1
42	Nebr. 1924	112	21	80	83	94	44	0	2
43	AES 806	111	24	78	76	87	38	0	1
44	Ill. 1912	111	25	78	67	89	46	0	2
45	Ill. 1966	111	22	80	77	87	40	0	1
46	Ill. 1968	111	20	80	76	88	45	0	1
47	Ill. 1972	111	22	81	74	96	43	0	3
48	Ill. 3018	111	22	80	90	94	40	0	3
49	Ill. 3025	111	24	80	89	95	40	0	0
50	Ill. 3038	111	20	80	91	89	38	0	1
51	Ill. 3041	111	19	81	72	93	38	0	3
52	Iowa 4809	111	22	78	95	92	41	0	1
53	Ill. 1969	110	22	79	93	91	43	0	3
54	Ill. 3045	110	20	81	96	89	40	0	0
55	Ill. 3047	110	20	78	85	93	41	0	0
56	Ill. 3015A	109	22	76	86	100	41	0	0
57	Ill. 3016	109	22	79	95	94	37	0	2
58	Ill. 3024	109	22	77	96	94	40	0	3
59	CB 4726A	109	21	80	87	94	35	0	0
60	Ill. 1831	108	23	79	80	89	37	0	2
61	Ill. 1921	108	26	77	92	84	45	0	1
62	Ill. 1916	107	23	78	71	86	47	0	2
63	Ill. 1926	107	24	77	73	93	43	0	0
64	Ill. 1277	106	22	81	80	92	40	0	1
65	Ill. 1930	106	30	78	86	82	46	0	1
66	Ill. 3011	106	24	78	91	98	41	0	0
67	Ill. 3044	106	22	78	89	96	40	0	0
68	AES 702	104	21	77	71	83	40	0	0
69	Ill. 1560A	104	20	83	81	94	39	0	2
70	Ill. 1868	104	24	78	93	88	40	0	0
71	Ill. 1875	104	24	76	81	81	49	0	0
72	Iowa 4879	104	22	78	96	82	38	0	1
73	Ill. 1913	103	21	79	65	86	45	0	0
74	Ill. 1967	103	23	77	88	89	46	0	4
75	Ill. 1863	102	21	80	94	90	32	0	3
76	Ill. 1922	102	27	76	84	87	43	0	0
77	Ill. 3124	102	21	79	91	88	42	0	1
78	Ill. 1919	101	24	78	66	91	46	0	5
79	Ill. 3048	101	20	80	92	80	43	0	0
80	Ill. 1902	100	20	79	65	87	41	0	3
81	Ill. 1917	100	24	77	59	86	49	0	1
82	Iowa 4297	98	22	80	75	98	41	0	3
83	Ill. 1927	93	24	76	84	81	43	0	0
84	Ill. 1819	92	22	78	62	72	41	0	0
85	Ill. 1873	91	23	77	82	86	39	0	0
86	Ill. 3046	91	20	75	92	83	41	0	0
87	Ill. 1814	90	24	78	87	81	36	0	1
88	Ill. 1936	90	22	78	89	82	37	0	0
89	Ill. 1555A	88	18	73	75	86	39	0	1
90	Ill. 2247W	83	23	72	80	89	39	0	0
	Average	111	22	79	81	91	41	0	1

Table 7. — SINGLE AND DOUBLE CROSSES OF ILLINOIS 21 MATURITY

Tested in North-Central Illinois, 1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut
	A — Single crosses							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	Hy2×R109B	109	25	78	67	100	47	1
2	Hy2×R113	110	21	79	65	89	47	0
3	Hy2×R165	120	21	82	79	90	42	0
4	Hy2×R166	93	21	79	66	87	39	0
5	Hy2×R168	106	19	81	96	91	42	0
6	Hy2×R172	88	21	80	88	77	40	0
7	Hy2×WF9	114	22	81	85	90	40	0
8	Hy2×B14	118	22	82	87	87	43	1
9	Hy2×Oh28	112	19	81	67	86	41	0
12	R109B×R113	101	22	78	82	89	37	0
13	R109B×R165	108	24	79	78	85	36	1
14	R109B×R166	98	24	80	92	94	34	1
15	R109B×R168	99	22	82	96	89	39	1
16	R109B×R172	90	23	75	81	95	38	1
17	R109B×WF9	109	23	77	96	84	34	0
18	R109B×B14	130	22	80	92	94	41	0
19	R109B×Oh28	91	21	80	87	87	33	1
23	R113×R165	106	20	75	46	92	37	0
24	R113×R166	79	21	78	47	85	36	1
25	R113×R168	94	20	78	86	85	39	0
26	R113×R172	92	18	75	86	93	38	0
27	R113×WF9	93	19	79	83	78	32	0
28	R113×B14	115	19	81	93	93	40	1
29	R113×Oh28	79	20	78	89	79	31	0
34	R165×R166	98	22	83	42	93	32	0
35	R165×R168	107	21	80	87	93	38	1
36	R165×R172	86	20	78	90	79	37	0
37	R165×WF9	116	20	81	72	93	34	0
38	R165×B14	117	21	81	85	90	38	1
39	R165×Oh28	97	22	80	65	79	33	1
45	R166×R168	82	20	72	78	90	34	2
46	R166×R172	82	20	81	63	88	36	1
47	R166×WF9	99	20	83	64	89	32	1
48	R166×B14	114	19	82	81	100	38	0
49	R166×Oh28	82	20	82	42	80	32	3
56	R168×R172	59	22	77	88	84	34	0
57	R168×WF9	108	21	80	96	94	37	0
58	R168×B14	111	18	82	95	88	40	1
59	R168×Oh28	94	18	83	88	84	35	1
67	R172×WF9	109	21	80	95	88	36	0
68	R172×B14	97	18	80	97	84	39	0
69	R172×Oh28	86	18	75	77	88	38	3
78	WF9×B14	118	20	79	98	88	37	0
79	WF9×Oh28	104	19	80	85	87	34	1
89	B14×Oh28	120	21	80	92	82	35	1
	Average	101	21	79	80	88	37	1
	B — Double crosses							
90	AES 702	117	22	85	87	84	39	0
92	Ill. 1575	108	20	79	85	85	38	1
93	Ill. 1936	103	21	75	86	88	34	1
91	Ill. 21	97	22	78	70	87	41	1
	Average	106	21	79	82	86	38	1

Table 8. — INBRED LINES OF ILLINOIS 21 MATURITY Tested in North-Central Illinois, 1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	WF9	49	19	73	85	87	24	7
2	R168	43	20	76	93	79	30	6
3	Oh28	41	17	69	67	79	29	10
4	B14	40	21	68	100	84	28	0
5	R172	38	24	75	92	84	28	0
6	R165	38	25	58	40	86	29	1
7	R113	35	18	67	95	80	26	0
8	R109B	31	28	69	78	76	31	0
9	Hy2	31	19	68	100	70	30	0
10	R166	17	25	53	78	86	26	41
	Average	36	22	68	83	81	28	6

Table 9. — DOUBLE CROSSES OF ILLINOIS 1570 MATURITY Tested in Central Illinois (Field A), 1955-1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut	Half-silk
					A — Three-year averages, 1955-1957					
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*days*
1	Ill. 1909	117	18	85	65	98	49	6	..	..
2	Ill. 1913	116	17	85	64	97	47	3	..	..
3	Ill. 1919	116	18	82	66	96	47	1	..	..
4	AES 806	114	21	82	70	98	44	5	..	..
5	Ill. 1916	114	18	84	70	98	48	4	..	..
6	Ill. 274-1	113	18	84	71	93	49	2	..	..
7	Ill. 972A-1	113	18	82	78	99	48	5	..	..
8	Ill. 1332	113	18	83	76	95	46	6	..	..
9	Ill. 1421	113	18	82	69	95	47	2	..	..
10	Ill. 1511	112	19	83	72	98	49	8	..	..
11	Ill. 1813	112	19	82	79	97	46	8	..	..
12	Ill. 1880	112	17	83	72	97	45	4	..	..
13	Ill. 1889	112	18	80	77	99	46	3	..	..
14	Ill. 1890	112	17	84	79	96	44	7	..	..
15	Ill. 1918	112	18	83	68	97	47	4	..	..
16	AES 805	111	18	83	80	97	47	5	..	..
17	Ill. 1912	109	19	84	59	95	47	4	..	..
18	U.S. 13	106	18	82	67	94	52	9	..	..
19	Ill. 1570	105	19	82	64	99	49	7	..	..
20	AES 808	104	17	84	69	97	43	3	..	..
21	Ill. 1767	104	18	80	74	95	45	5	..	..
22	Ill. 1777	103	18	82	69	97	45	3	..	..
23	Ill. 21	99	17	83	69	96	44	4	..	..
	Average	111	18	83	71	97	47	5	..	..
					B — Two-year averages, 1956-1957					
1	Ind. 5655	131	18	84	92	98	44	1	3	67
2	Ill. 1975	128	21	80	72	97	56	1	3	70
3	Ill. 1913	127	18	85	82	97	48	1	2	65
4	Ill. 1890	126	18	84	89	98	43	3	1	65
5	Ill. 1893	126	18	80	90	93	50	2	4	70
6	Ill. 1909	126	18	84	80	99	48	4	2	65
7	AES 805	124	19	82	90	96	46	2	2	66
8	AES 806	124	22	82	89	98	44	2	4	66
9	Ill. 1332	124	18	82	87	96	46	4	0	66
10	Ill. 1511	124	20	82	88	98	49	5	4	66
11	Ill. 1656	124	18	83	84	100	48	2	2	66
12	Ill. 1916	124	18	84	88	99	48	2	7	66
13	Ill. 1919	124	18	82	81	96	46	0	3	66

(Table is continued on next page)

Table 9. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut	Half-silk
	B — Two-year averages, 1956-1957 — Concluded									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*days*
14	Ill. 1928	124	20	82	89	96	50	2	4	66
15	Ill. 1889	123	18	80	87	100	45	1	6	66
16	Ill. 1421	122	19	80	82	96	48	0	1	66
17	Ill. 1813	122	20	82	96	96	44	4	1	66
18	Ill. 1918	122	18	82	87	98	46	2	1	65
19	Ill. 1921	122	19	82	90	98	44	4	0	66
20	Ill. 972A-1	121	18	82	92	100	47	2	2	66
21	Ill. 1927	121	21	80	90	98	46	2	1	66
22	Ill. 274-1	120	18	83	92	94	48	2	1	66
23	Ill. 1880	120	17	83	87	98	45	2	1	66
24	Ill. 1973	120	19	84	90	100	46	0	2	66
25	Mo. 4060AW	120	20	79	93	98	46	2	1	65
26	AES 702	119	20	80	86	100	46	3	2	65
27	Ill. 1912	119	20	83	71	95	47	4	3	66
28	Iowa 4912	119	18	81	84	98	48	2	2	66
29	Ill. 1922	118	20	79	94	98	44	3	1	66
30	Ill. 1974	118	18	84	84	98	47	0	2	66
31	Ill. 1972	117	20	83	81	98	44	0	2	66
32	Ill. 1926	116	18	80	92	95	46	4	2	65
33	Ind. 4655	116	20	82	96	94	42	2	2	66
34	Ill. 1570	115	19	81	72	99	49	2	3	66
35	U.S. 13	115	18	82	82	94	50	4	2	66
36	AES 808	114	18	84	84	98	42	2	2	67
37	Ill. 1902	114	16	83	78	98	44	2	2	66
38	Ill. 1777	112	18	82	84	97	44	0	2	66
39	Ill. 1767	110	19	80	89	93	45	2	3	66
40	Ind. 4656	110	20	82	88	96	41	0	2	66
41	Ill. 21	108	18	82	85	96	40	0	0	65
42	Ill. 1935	106	18	80	94	96	45	2	6	66
	Average	120	19	82	86	97	46	2	2	66
	C — 1957 results (3 replications)									
1	Ill. 1332-3	119	24	78	84	99	49	0	1	61
2	Ill. 3092	118	22	78	90	99	49	0	1	60
3	Ind. 5655	118	20	79	87	98	46	0	2	62
4	A 102	118	27	78	80	98	45	0	1	62
5	Ill. 1852	116	24	76	70	99	50	0	0	66
6	Ill. 1859	116	22	78	64	98	51	0	0	65
7	Ill. 1928	116	24	80	86	96	52	0	1	61
8	Ill. 1982	116	24	76	70	99	52	0	1	62
9	Ill. 1656	115	21	80	80	100	47	0	2	62
10	Ill. 1913	115	20	82	73	96	49	0	2	60
11	Ill. 1995	115	25	88	69	95	47	0	1	62
12	Ill. 3052	115	20	80	76	100	44	0	1	59
13	Ill. 3105	115	19	81	70	99	49	0	0	60
14	AES 805	114	22	78	89	95	47	0	1	60
15	Ill. 1656-2	114	21	79	74	94	46	0	2	63
16	Ill. 1890	114	20	83	84	97	43	0	0	60
17	Ill. 1975	114	25	76	55	96	51	0	1	65
18	Ill. 1981	114	22	77	84	98	49	0	2	63
19	Ill. 1985	114	21	80	67	99	48	0	1	62
20	Ill. 1991	114	24	81	80	92	45	0	2	63
21	Ill. 3049	114	21	81	96	94	47	0	0	60
22	Ill. 3091	114	25	78	65	99	47	0	1	63
23	Ill. 1921	113	22	78	87	98	45	0	0	62
24	Ill. 1976	113	24	76	74	91	50	0	1	66
25	Ill. 1978	113	25	74	78	98	46	0	0	65
26	Ill. 3093	113	22	78	90	99	47	0	0	60
27	Ill. 3095	113	21	78	77	96	46	0	0	60
28	Ill. 3104	113	20	79	78	96	44	0	1	61
29	AES 702	112	23	77	83	99	46	0	0	60
30	Ill. 1656-1	112	21	78	83	97	46	0	1	61
31	Ill. 1880	112	20	81	81	99	44	0	1	61
32	Ill. 1902	112	20	81	69	98	45	0	0	60
33	Ind. 6833	112	21	78	80	98	49	0	0	63
34	Ill. 1421	111	23	76	71	95	50	0	0	60
35	Ill. 1909	111	21	81	73	98	47	0	2	60
36	Ill. 3107	111	22	79	82	99	45	0	1	61
37	Ill. 3115	111	19	79	78	97	47	0	3	61

(Table is continued on next page)

Table 9. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut	Half-silk
	C — 1957 results (3 replications) — Continued									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*days*
38	Ill. 3124	111	24	78	94	99	45	0	2	60
39	AES 806	110	27	78	84	97	44	0	1	61
40	Ill. 21-2	110	21	80	80	90	49	0	1	61
41	Ill. 1332	110	22	78	85	94	44	0	0	61
42	Ill. 1946	110	26	80	85	99	52	0	1	61
43	Ill. 3077	110	20	76	63	98	45	0	3	62
44	Ill. 3083	110	23	80	92	100	44	0	2	60
45	Ill. 3101	110	19	80	68	95	46	0	1	61
46	Mo. 4060AW	110	24	75	90	99	47	0	0	60
47	A 101	110	26	80	80	97	46	0	3	62
48	Ill. 21-4	109	21	79	74	89	43	0	3	60
49	Ill. 1643	109	22	79	71	99	50	0	0	66
50	Ill. 1918	109	22	79	82	100	47	0	1	60
51	Ill. 1974	109	22	81	74	97	49	0	0	61
52	Ill. 1983	109	22	83	88	100	46	0	2	61
53	Ill. 1997	109	25	79	83	97	46	0	0	63
54	Ill. 3062	109	20	82	77	98	48	0	0	62
55	Ill. 3065	109	20	84	76	98	46	0	1	61
56	Ill. 3112	109	22	77	87	92	47	0	2	61
57	Ill. 972A-1	108	22	79	92	99	49	0	0	62
58	Ill. 1332-4	108	23	78	79	99	46	0	2	60
59	Ill. 1337-1	108	22	78	69	97	46	0	0	60
60	Ill. 1851	108	24	75	92	96	49	0	1	66
61	Ill. 1856	108	34	77	73	97	54	0	1	67
62	Ill. 1857	108	29	74	68	98	55	0	2	67
63	Ill. 1927	108	27	77	83	98	46	0	1	61
64	Ill. 1942	108	24	76	81	97	50	0	5	62
65	Ill. 1945	108	27	79	78	99	54	0	1	63
66	Ill. 1973	108	23	82	88	100	47	0	0	61
67	Ill. 1980	108	20	78	90	96	49	0	0	61
68	Ill. 3117	108	22	83	78	98	43	0	3	61
69	Ill. 1332-2	107	21	78	76	96	47	0	0	60
70	Ill. 1570-1	107	23	77	75	100	45	0	1	60
71	Ill. 1813	107	22	78	95	98	45	0	0	60
72	Ill. 1849	107	27	75	88	95	48	0	1	66
73	Ill. 1916	107	23	80	82	98	48	0	8	61
74	Ill. 1984	107	25	77	76	96	46	0	0	61
75	Ill. 3055	107	21	81	84	98	43	0	0	60
76	Ill. 3094	107	25	77	84	97	49	0	4	61
77	Ill. 3114	107	23	77	67	99	49	0	1	60
78	Iowa 4912	107	22	78	76	100	49	0	1	61
79	Ill. 1944	106	23	74	94	97	50	0	3	61
80	Ill. 1988	106	22	78	77	95	44	0	0	61
81	Ill. 1996	106	24	77	86	97	47	0	0	61
82	Ill. 3076	106	22	78	82	98	46	0	0	61
83	Ill. 3116	106	20	80	83	100	45	0	2	61
84	Ill. 3118	106	23	77	85	99	48	0	0	62
85	Ill. 1511	105	24	77	83	98	49	0	2	60
86	Ill. 1570-2	105	24	77	71	99	48	0	0	62
87	Ill. 1889	105	20	76	82	100	45	0	6	61
88	Ill. 1893	105	22	78	85	90	51	0	1	65
89	Ill. 1919	105	22	78	74	100	45	0	2	61
90	Ill. 1922	105	24	75	92	97	45	0	1	61
91	Ill. 3084	105	22	75	82	97	47	0	0	60
92	AES 808	104	21	80	76	99	45	0	2	62
93	Ill. 1570A	104	22	76	73	100	45	0	0	61
94	Ill. 1926	104	20	77	91	94	47	0	1	60
95	Ill. 1986	104	22	78	79	94	44	0	0	60
96	Ill. 1994	104	24	75	95	94	45	0	0	60
97	Ill. 3072	104	23	76	60	98	49	0	0	65
98	Ill. 3089	104	23	78	67	98	48	0	0	61
99	Ill. 3090	104	24	78	68	88	49	0	0	61
100	Ill. 3100	104	20	83	97	97	45	0	3	59
101	Ill. 3121	104	21	80	95	98	44	0	3	60
102	Kan. 1884	104	24	79	66	99	44	0	0	61
103	Ill. 21-3	103	25	79	80	98	48	0	3	61
104	Ill. 1912	103	25	81	55	93	47	0	0	61
105	Ill. 1947	103	23	83	85	95	48	0	1	64
106	Ill. 1972	103	24	81	69	96	45	0	1	61
107	Ill. 1990	103	20	80	84	95	41	0	0	60
108	Ill. 3051	103	22	78	92	97	49	0	1	61
109	Ill. 3056	103	19	80	81	97	43	0	0	60
110	Ill. 3078	103	24	76	70	96	47	0	1	61

(Table is concluded on next page)

Table 9. — Concluded

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut	Half-silk
	C — 1957 results (3 replications) — Concluded									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*days*
111	Ill. 3079	103	20	78	76	99	46	0	2	61
112	Ill. 3086	103	22	79	87	95	44	0	3	61
113	Ill. 3098	103	25	79	75	97	47	0	5	60
114	Ill. 3119	103	28	77	86	100	43	0	1	60
115	Ind. 4655	103	24	78	94	90	45	0	1	60
116	Ill. 1925	102	24	80	87	98	43	0	0	60
117	Ill. 1935	102	21	76	88	97	48	0	3	60
118	Ill. 3088	102	20	79	84	92	45	0	0	60
119	Ill. 3102	102	21	78	74	98	48	0	0	60
120	Ill. 3103	102	20	80	74	94	45	0	1	60
121	Ill. 3113	102	19	81	84	98	43	0	0	60
122	Iowa 4906	102	21	81	91	98	44	0	0	61
123	Ill. 21	101	20	80	80	98	41	0	0	60
124	Ill. 1943	101	24	78	87	96	45	0	2	64
125	Ill. 3070	101	25	78	93	98	46	0	1	62
126	Ill. 3080	101	24	78	79	97	48	0	3	61
127	Ill. 3096	101	24	78	90	97	42	0	1	60
128	Ill. 3108	101	20	83	87	90	44	0	3	60
129	Ill. 1777	100	22	78	74	96	46	0	1	61
130	Ill. 1987	100	22	75	82	95	44	0	0	62
131	Ill. 1993	100	20	78	83	98	43	0	0	61
132	Ill. 3067	100	24	85	74	91	45	0	4	63
133	Ill. 3075	100	25	80	92	99	47	0	2	60
134	Ill. 3082	100	23	77	84	92	45	0	3	61
135	Ill. 3087	100	20	81	85	97	43	0	0	60
136	Ill. 3109	100	21	81	79	98	41	0	1	60
137	U.S. 13	100	20	78	76	92	48	0	2	61
138	Ill. 274-1	99	21	81	89	90	48	0	0	61
139	Ill. 1941	99	23	74	76	98	52	0	5	63
140	Ill. 1989	99	21	76	89	92	42	0	0	60
141	Ill. 3085	99	20	79	68	93	48	0	0	61
142	Ill. 1948	98	23	78	78	100	47	0	2	62
143	Ill. 3061	98	20	82	76	96	42	0	0	61
144	Ill. 3064	98	24	80	63	94	45	0	3	61
145	Ill. 3110	98	26	80	82	97	48	0	2	61
146	Ill. 1570	97	23	76	61	99	47	0	2	61
147	Ill. 1977	97	24	78	71	96	48	0	3	61
148	Ind. 4656	97	24	78	81	95	42	0	1	60
149	Ill. 1951	96	22	79	90	93	48	0	1	61
150	Ill. 1992	96	26	73	90	95	47	0	0	61
151	Ill. 3050	96	22	78	82	92	44	0	0	60
152	Ill. 3106	96	25	80	90	98	45	0	2	63
153	Ill. 1767	95	22	75	87	91	45	0	5	61
154	Ill. 1939	95	26	73	92	96	48	0	2	62
155	Ill. 3060	95	25	81	76	95	46	0	1	61
156	Ill. 3081	95	23	79	85	92	44	0	3	61
157	Ill. 3111	95	20	80	89	99	47	0	0	61
158	Ill. 1660	94	37	74	84	100	54	0	0	68
159	Ill. 3058	94	19	80	91	95	46	0	1	61
160	Ill. 3059	94	23	78	84	97	43	0	1	60
161	Ill. 3063	94	23	80	82	93	48	0	2	61
162	Ill. 3069	94	24	78	95	100	44	0	0	62
163	Ill. 3120	94	26	79	71	98	46	0	3	62
164	Ill. 3125	94	26	79	88	97	46	0	2	60
165	Ill. 1949	93	26	77	93	94	47	0	0	63
166	Ill. 3054	93	20	78	78	100	43	0	0	61
167	Ill. 3066	93	23	81	85	92	43	0	1	61
168	Ill. 3097	93	20	78	75	97	44	0	3	61
169	Ill. 1938	92	28	75	95	95	47	0	0	64
170	Ill. 3151	92	21	74	85	95	45	0	0	62
171	Ill. 3071	91	26	75	67	95	50	0	0	65
172	Ill. 3073	91	26	77	94	96	45	0	2	62
173	Ill. 3074	91	23	79	91	98	45	0	1	62
174	Ill. 1950	90	28	77	94	96	45	0	0	64
175	Ill. 3057	90	22	79	85	98	45	0	0	60
176	Ind. 6623	90	20	76	84	98	49	0	1	66
177	Ill. 1940	89	27	75	91	97	46	0	1	63
178	Iowa 4907	89	24	74	90	98	44	0	0	62
179	GCP 6220	88	23	76	90	92	51	0	5	65
180	Ill. 1850	88	34	72	85	96	53	0	1	68
181	Ill. 2246W	73	24	71	78	95	50	0	2	63
	Average	104	23	78	81	97	47	0	1	61

Table 10. — DOUBLE CROSSES OF ILLINOIS 1570 MATURITY
Tested in Central Illinois (Field B), 1956-1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut	Half-silk
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*days*
1	Ill. 1981	**131**	**20**	80	**90**	**98**	49	**0**	**4**	68
2	Ill. 1851	**130**	22	78	**93**	**96**	50	**0**	6	72
3	Ill. 1982	**129**	22	79	82	**98**	50	**2**	**2**	68
4	Ill. 1995	**129**	22	**86**	76	**97**	49	**2**	**4**	67
5	Ill. 1643	**128**	**20**	**82**	82	**99**	50	**3**	**2**	70
6	Ill. 1976	**128**	22	78	82	95	50	**1**	**4**	70
7	Ill. 1978	**128**	22	78	**87**	**99**	47	**2**	**1**	69
8	Ill. 1996	**128**	22	80	**91**	**98**	48	**1**	**1**	66
9	Ill. 1913	**126**	**18**	**85**	82	**97**	48	**0**	**3**	66
10	Ill. 1991	**125**	21	80	**85**	**96**	46	**2**	**2**	69
11	Ill. 1660	**124**	32	78	**88**	**99**	54	**0**	**2**	73
12	Ill. 1918	**124**	**20**	**82**	**86**	**99**	46	**2**	**1**	**64**
13	Ill. 1945	**124**	23	**82**	**86**	**98**	54	**2**	6	68
14	Ill. 1985	**124**	**20**	**82**	80	**98**	47	**2**	**1**	66
15	Ill. 1997	**124**	22	80	**88**	**98**	48	**0**	**1**	68
16	Ill. 1332	**122**	**19**	80	**88**	**96**	46	**3**	**2**	66
17	Ill. 1919	**122**	**20**	81	**84**	**98**	45	**0**	**4**	66
18	Ill. 1942	**122**	22	78	**88**	**98**	51	**0**	10	68
19	Ill. 1944	**122**	21	78	**95**	**98**	50	**0**	6	66
20	Ill. 1946	**122**	22	80	**88**	**99**	53	**0**	6	67
21	Ill. 1947	**122**	22	**82**	**87**	**97**	49	**0**	**3**	68
22	Ill. 1980	**122**	**18**	81	**94**	**98**	48	**2**	**1**	66
23	Ill. 1983	**122**	**18**	**84**	**92**	**100**	46	**2**	**3**	66
24	Ill. 1992	**122**	22	78	**93**	**97**	46	**0**	**1**	67
25	Ill. 1984	**121**	22	78	**84**	**98**	47	**0**	**0**	66
26	Ill. 1570-1	**120**	21	80	**86**	**100**	46	**2**	**1**	66
27	Ill. 1570A	**120**	**20**	80	**84**	**100**	46	**2**	**0**	66
28	Ill. 1880	**120**	**18**	**83**	**86**	**99**	45	4	**1**	66
29	Ill. 1943	**120**	22	80	**92**	**98**	45	**0**	**2**	68
30	Ill. 1948	**120**	22	80	**85**	**100**	48	**0**	**5**	66
31	Ill. 1994	**120**	22	78	**94**	**96**	46	**1**	**1**	66
32	Ill. 1951	**119**	**20**	**82**	**91**	**96**	50	**0**	**2**	66
33	Ill. 1939	**118**	24	77	**96**	**98**	47	**0**	**4**	67
34	Ill. 1941	**117**	22	78	**86**	**99**	51	**0**	8	68
35	Ill. 1986	**117**	**20**	**82**	**89**	95	44	**0**	**3**	66
36	Ill. 1977	**116**	**20**	80	83	**98**	47	**2**	**4**	66
37	Ill. 1987	**116**	**20**	78	**88**	**97**	46	4	**1**	67
38	Ill. 1949	**115**	24	79	**96**	**96**	46	**0**	**2**	67
39	Ill. 1570	**114**	**20**	80	75	**98**	48	**2**	**2**	66
40	Ill. 1988	**113**	**20**	80	**86**	**96**	44	**2**	**0**	66
41	Ill. 1993	**113**	**18**	80	**90**	**98**	44	**1**	**2**	66
42	Ill. 1938	112	26	77	**96**	**97**	46	**0**	**2**	68
43	Ill. 1990	112	**18**	**82**	**91**	**97**	**40**	**0**	**0**	**64**
44	Ill. 1940	110	24	78	**94**	**98**	46	**0**	**4**	68
45	Ill. 1950	109	25	79	**96**	**98**	46	**0**	**0**	68
46	Ill. 1989	109	**20**	79	**93**	**96**	**42**	**2**	**0**	66
47	Ill. 2246W	107	**20**	78	**86**	**98**	50	**3**	**2**	68
	Average	120	21	80	88	98	47	1	3	67

Table 11. — HIGH-OIL DOUBLE CROSSES AND STANDARDS
Tested in Central Illinois, 1957

(Data in **boldface** were not statistically different from the best performance for that characteristic)

Rank in yield	Entry	Acre yield	Oil		Protein		Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut	Half-silk
	A — High-oil double crosses												
		bu.	*perct.*	*lb. per acre*	*perct.*	*lb. per acre*	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*days*
1	Ill. 6062....	**137**	5.38	413	11.46	879	27	78	55	**97**	56	**1**	66
2	Ill. 6052....	**136**	5.46	416	10.53	802	22	77	**67**	**99**	55	**1**	65
3	Ill. 6016....	**131**	5.93	435	11.00	807	23	78	50	**99**	57	**3**	66
4	Ill. 6021....	**131**	5.88	431	10.56	774	24	78	60	**95**	54	**1**	66
5	Ill. 6084....	124	**5.14**	357	10.62	738	21	80	25	**97**	55	**1**	**64**
6	Ill. 6076....	122	4.77	326	10.41	711	22	77	23	**96**	47	**1**	**63**
7	Ill. 6075....	119	4.92	328	10.31	687	22	81	45	**99**	45	**1**	**63**
	Average	129	5.35	387	10.70	771	23	78	46	97	53	1	65
	B — Standard checks												
1	Ill. 1332....	**141**	4.43	350	9.46	747	21	80	**74**	**100**	48	**0**	**64**
2	U.S. 13.....	**137**	4.62	354	9.62	738	23	79	**65**	**96**	54	**1**	**65**
3	K4×38-11..	**131**	5.29	388	11.10	814	28	76	**74**	**97**	58	**1**	**69**
4	WF9×38-11	126	4.44	313	10.68	754	22	77	**79**	**100**	47	**2**	[illegible]
5	Hy2×WF9.	122	3.74	255	8.41	575	22	78	**78**	95	44	**1**	
6	Ill. High Oil[a]	50	11.03	309	12.19	342	20	80	40	90	**27**	12	[illegible]
	Average	118	5.59	328	10.24	662	23	78	68	96	46	3	63

[a] Open-pollinated variety.

Table 12. — THREE-WAY, SINGLE, AND DOUBLE CROSSES OF ILLINOIS 1570 MATURITY

Tested in Central Illinois, 1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut	Half-silk
	A — Inbred lines crossed with (Hy × WF9)								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*days*
1	L317	137	23	78	36	99	54	0	65
2	38-11	134	22	79	47	98	50	0	65
3	B44	129	24	81	61	99	43	1	63
4	CI.31A	147	27	78	82	99	54	0	65
5	K799	134	26	80	83	98	54	1	64
6	K800	116	20	80	49	99	50	1	61
7	Mo11662	123	26	79	66	97	50	0	64
8	Mo11276	122	23	80	62	97	43	1	64
9	Oh3C	129	27	76	96	91	46	1	65
10	Oh3F	146	25	77	94	99	46	1	64
11	Oh4G	135	28	74	91	100	46	0	66
12	Oh7K	132	25	78	71	99	46	0	63
13	Oh7N	136	24	76	77	100	43	0	63
14	Oh7P	144	25	72	82	98	53	1	65
15	R113	109	22	77	47	97	44	0	62
16	R153	132	24	77	69	100	46	0	62
17	R154	127	21	81	51	97	52	2	62
18	R159	133	23	80	88	97	48	2	62
19	R166	113	22	82	35	99	41	1	62
20	R168	130	24	79	98	100	46	2	62
	Average	130	24	78	69	98	48	1	63
	B — Inbred lines crossed with (WF9 × 38-11)								
21	Hy	135	23	78	58	97	53	2	65
22	B44	136	21	81	81	97	44	0	65
23	CI.31A	139	30	77	82	98	55	1	66
24	K799	120	26	77	88	97	47	0	64
25	K800	115	21	80	53	97	48	3	64
26	Mo11662	129	23	79	73	100	47	2	64
27	Mo11276	126	22	78	87	96	44	3	64
28	Oh3F	125	28	72	98	98	47	2	66
29	Oh4G	140	28	74	86	98	51	1	67
30	Oh7N	119	24	75	63	92	45	1	66
31	R113	117	26	74	60	93	46	1	65
32	R153	119	21	78	63	97	45	1	63
33	R154	132	22	80	67	97	51	0	63
34	R159	137	22	80	79	99	46	1	64
35	R166	110	22	80	48	94	42	4	63
36	R168	124	22	79	95	97	46	1	62
	Average	126	24	78	74	97	47	1	64
	C — Single crosses								
37	Hy×WF9	122	22	78	78	95	44	1	60
38	WF9×38-11	126	22	77	79	100	47	2	64
	Average	124	22	78	78	98	46	2	62
	D — Double crosses								
39	Ill. 1332	141	21	80	74	100	48	0	64
40	U.S. 13	137	23	79	65	96	54	1	65
	Average	139	22	80	70	98	51	0	64

Table 13. — SINGLE AND DOUBLE CROSSES OF ILLINOIS 1570 MATURITY

Tested in Central Illinois, 1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut	Half-silk
	A — Single crosses								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*days*
1	Hy2×R71	120	20	81	100	94	45	0	74
2	Hy2×R74	127	19	82	100	98	42	0	72
3	Hy2×R113	114	17	81	98	98	45	1	71
4	Hy2×R127	127	18	86	99	94	44	1	72
5	Hy2×R129	86	19	83	97	91	42	0	75
6	Hy2×R154	118	17	84	91	92	45	0	73
7	Hy2×R168	110	17	82	98	96	43	1	72
8	Hy2×WF9	124	18	84	99	96	40	1	71
9	Hy2×38-11	128	19	84	72	98	49	1	75
12	R71×R74	114	22	81	99	94	37	2	74
13	R71×R113	97	19	80	97	91	41	0	74
14	R71×R127	111	19	83	93	92	40	1	74
15	R71×R129	124	20	80	91	99	42	2	76
16	R71×R154	128	19	84	82	96	43	1	74
17	R71×R168	97	19	83	100	89	41	1	73
18	R71×WF9	120	17	80	97	96	36	0	73
19	R71×38-11	123	18	81	91	96	42	0	75
23	R74×R113	96	18	78	100	92	38	2	71
24	R74×R127	120	19	83	97	99	40	1	73
25	R74×R129	121	20	80	98	93	37	0	72
26	R74×R154	117	18	82	97	92	40	4	71
27	R74×R168	109	18	83	100	99	40	1	71
28	R74×WF9	123	18	81	100	91	33	0	70
29	R74×38-11	118	19	82	99	91	40	1	74
34	R113×R127	107	16	83	95	90	41	1	73
35	R113×R129	109	17	83	100	91	39	1	74
36	R113×R154	107	15	83	93	97	40	1	71
37	R113×R168	93	17	83	99	88	37	3	70
38	R113×WF9	106	16	82	99	94	37	2	70
39	R113×38-11	105	16	82	99	95	40	0	72
45	R127×R129	110	17	83	79	79	40	0	75
46	R127×R154	130	17	85	70	95	43	1	73
47	R127×R168	106	17	85	95	94	40	2	73
48	R127×WF9	110	16	85	96	91	35	1	71
49	R127×38-11	124	18	86	65	86	44	1	75
56	R129×R154	112	16	85	55	89	41	3	73
57	R129×R168	107	19	82	93	89	38	1	73
58	R129×WF9	123	16	82	98	96	36	0	72
59	R129×38-11	112	17	82	86	90	38	2	75
67	R154×R168	111	17	83	93	92	41	2	71
68	R154×WF9	124	17	83	95	94	40	6	71
69	R154×38-11	120	16	86	51	96	47	3	75
78	R168×WF9	107	16	82	98	97	39	0	70
79	R168×38-11	115	16	85	95	97	44	1	73
89	WF9×38-11	111	17	84	96	90	39	1	73
	Average	114	18	83	92	93	41	1	73
	B — Double crosses								
91	Ill. 1332	131	18	84	98	94	41	4	74
92	Ill. 1570	128	18	80	94	92	43	8	75
93	Ill. 1893	124	20	81	89	91	42	2	73
90	AES 805	123	18	83	96	96	39	2	71
	Average	126	18	82	94	93	41	4	73

Table 14. — CORN-BORER-RESISTANT SINGLE CROSSES AND DOUBLE-CROSS STANDARDS OF ILLINOIS 1570 MATURITY

Tested in Central Illinois, 1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut	Half-silk
	A — Single crosses								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*days*
1	R71×R74	95	20	81	99	96	33	4	73
2	R71×R96B	102	17	85	92	97	33	1	74
3	R71×R109B	107	19	82	98	94	36	4	74
4	R71×R110	94	19	79	98	92	38	3	75
5	R71×R112	93	17	83	98	97	33	5	74
6	R71×R113	96	16	81	100	92	36	1	72
8	R71×R115	100	19	80	93	97	43	11	76
9	R71×R168	109	18	83	95	94	39	1	74
12	R74×R96B	96	16	83	94	93	32	3	72
13	R74×R109B	112	19	81	99	96	36	1	72
14	R74×R110	103	19	78	97	97	34	4	74
15	R74×R112	118	18	84	99	96	33	2	72
16	R74×R113	99	17	81	98	90	38	3	72
17	R74×R114	103	17	79	98	95	36	0	73
18	R74×R115	107	19	80	89	94	42	2	74
19	R74×R168	112	17	84	100	91	37	0	72
23	R96B×R109B	113	17	84	76	94	38	1	74
24	R96B×R110	97	15	82	91	93	36	1	74
25	R96B×R112	104	15	85	98	93	35	4	72
26	R96B×R113	95	15	83	86	95	40	2	73
27	R96B×R114	103	15	86	96	98	35	2	74
28	R96B×R115	95	15	84	81	93	41	5	75
29	R96B×R168	108	16	84	90	89	34	3	74
34	R109B×R110	103	17	80	92	95	38	3	74
35	R109B×R112	121	17	84	98	98	35	0	72
36	R109B×R113	90	16	83	97	91	36	2	73
37	R109B×R114	109	17	81	100	93	38	2	74
38	R109B×R115	118	17	81	83	96	47	2	76
39	R109B×R168	101	17	81	97	90	39	8	72
45	R110×R112	98	15	81	95	94	34	2	73
46	R110×R113	97	15	84	93	94	39	2	75
47	R110×R114	99	15	81	99	95	37	2	75
48	R110×R115	86	15	77	88	98	40	17	75
49	R110×R168	102	16	80	91	92	41	3	73
56	R112×R113	94	16	85	99	91	33	4	72
57	R112×R114	99	15	84	100	94	33	2	74
58	R112×R115	118	18	85	93	90	38	4	74
59	R112×R168	109	17	84	96	95	35	4	73
67	R113×R114	96	15	81	97	92	41	2	74
68	R113×R115	98	16	82	98	94	35	1	72
69	R113×R168	99	15	82	98	92	35	0	71
78	R114×R115	95	14	81	97	93	42	17	75
79	R114×R168	106	16	80	100	90	39	3	73
89	R115×R168	115	16	82	94	94	42	21	75
	Average	103	17	82	95	94	37	4	74
	B — Double crosses								
92	AES 805	125	19	82	97	97	36	4	73
91	AES 702	118	18	80	98	92	34	1	72
93	Ill. 3057	106	17	85	100	95	35	0	72
07	Ill. 3059	98	17	79	97	88	37	0	72
90	AES 610	97	16	85	98	93	26	1	69
	Average	109	17	82	98	93	34	1	72

Table 15. — INBRED LINES OF ILLINOIS 1570 MATURITY
Tested in Central Illinois, 1957

(Data in **boldface** were not statistically different from the best performance for that characteristic)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut	Half-silk
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*days*
1	R71	**50**	18	**71**	**97**	**97**	25	**3**	82
2	R74	**48**	18	**72**	**100**	**94**	23	**2**	80
3	38-11	**47**	**15**	**77**	**86**	**94**	33	**3**	84
4	R154	**44**	**16**	**77**	78	79	31	**5**	79
5	WF9	**41**	**16**	**72**	**99**	**94**	**20**	**7**	**77**
6	R168	39	**15**	**75**	**82**	**91**	29	**4**	**77**
7	R127	38	17	**75**	79	73	29	**1**	83
8	Hy2	35	19	**70**	**99**	**85**	27	**0**	82
9	R113	30	**14**	60	**99**	**96**	**24**	33	**77**
10	R129	24	**15**	67	44	75	**23**	**0**	82
	Average	40	16	72	86	88	26	6	80

Table 16. — CORN-BORER-RESISTANT INBRED LINES OF ILLINOIS 1570 MATURITY
Tested in Central Illinois, 1957

(Data in **boldface** were not statistically different from the best performance for that characteristic)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut	Half-silk
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*days*
1	R74	**50**	18	**74**	**100**	**94**	**19**	**1**	79
2	R71	**47**	19	**73**	**97**	**94**	24	**3**	82
3	R109B	**40**	17	**76**	85	**86**	26	**0**	80
4	R168	38	16	**75**	81	**90**	26	**3**	**77**
5	R113	36	**14**	67	**96**	**89**	25	**6**	**76**
6	R114	32	**15**	68	**99**	**90**	31	**6**	86
7	R112	28	16	**76**	75	**92**	23	**1**	80
8	R110	26	**14**	66	**88**	**87**	29	**4**	84
9	R96B	25	**15**	69	**99**	**89**	22	**0**	82
10	R115	17	16	62	**92**	81	34	46	87
	Average	34	16	71	91	89	26	7	81

Table 17. — DOUBLE CROSSES OF ILLINOIS 1851 MATURITY
Tested in South-Central Illinois, 1955-1957

(Data in **boldface** were not statistically different from the best performance for that characteristic)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	A — Three-year averages, 1955-1957								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	Ill. 1851	81	26	75	66	99	53	0	..
2	AES 805	79	23	77	73	98	49	0	..
3	Ill. 1893	78	25	76	76	100	54	1	..
4	Ill. 1913	78	20	79	71	99	50	1	..
5	AES 904W	77	28	77	69	100	54	0	..
6	Ill. 1349	77	26	79	65	98	55	2	..
7	Ill. 1919	77	22	78	76	96	48	0	..
8	Ill. 1657	76	28	77	46	98	52	0	..
9	Ill. 1918	76	25	77	78	98	48	1	..
10	Ill. 1539A	75	28	77	64	99	54	1	..
11	Ill. 1909	75	22	78	76	96	49	1	..
12	Ill. 1570	74	24	76	68	98	49	1	..
13	Ill. 1332	73	25	77	78	97	50	0	..
14	Ill. 1771	73	27	78	71	95	51	1	..
15	Ill. 1852	73	27	72	63	95	52	0	..
16	AES 903W	72	26	71	59	99	48	0	..
17	Ill. 200	72	26	77	59	98	56	0	..
18	Ill. 1849	72	28	73	76	97	52	2	..
19	Ill. 1850	72	28	76	67	99	53	1	..
20	Ill. 1859	72	27	76	58	99	49	1	..
21	Ill. 1656	71	25	78	66	95	48	0	..
22	Ill. 1856	71	27	73	72	97	51	1	..
23	U.S. 523W	70	27	74	48	98	50	0	..
24	Ill. 1857	69	28	74	55	95	51	1	..
25	Ill. 2246W	69	23	77	66	96	50	1	..
26	Mo. 804	67	25	75	60	100	55	0	..
27	U.S. 13	65	24	76	57	95	51	0	..
	Average	73	26	76	66	98	51	1	..
	B — Two-year averages, 1956-1957								
1	Ill. 1851	88	28	74	84	99	56	0	0
2	Ill. 1935	88	24	78	93	99	50	0	0
3	AES 805	86	26	76	90	96	50	0	0
4	Ill. 1919	85	24	77	93	96	48	0	2
5	AES 904W	84	32	76	94	100	54	0	2
6	Ill. 1893	84	28	74	93	100	54	0	0
7	Ill. 1913	84	22	79	95	99	51	1	0
8	Ill. 1349	82	30	78	86	98	57	1	1
9	Ill. 1539A	82	32	76	86	98	55	0	0
10	Ill. 1918	82	28	76	91	96	48	0	0
11	Ill. 1945	82	28	78	88	99	53	0	1
12	Ill. 1948	82	27	77	87	96	50	0	2
13	Ill. 1657	81	30	75	60	98	54	0	0
14	Ill. 1771	80	30	77	90	94	52	1	0
15	Ill. 1889	80	26	76	92	98	49	0	2
16	Ill. 1909	80	26	77	94	96	50	0	0
17	Ill. 1922	80	27	76	96	98	50	0	0
18	Ill. 1928	80	28	75	94	100	50	1	1
19	Ill. 200	79	28	77	80	98	56	0	0
20	Ill. 1332	78	28	76	96	98	52	0	0
21	Ill. 1570	78	26	74	90	98	50	0	0
22	Mo. 916	78	30	72	94	98	54	0	2
23	Ill. 1850	77	30	74	84	100	54	0	1
24	AES 903W	76	30	70	84	98	48	0	0
25	Ill. 1852	76	30	70	80	94	52	0	0
26	Ill. 1859	76	31	74	69	100	48	0	2
27	Mo. 804	76	28	74	81	100	56	0	1
28	Ill. 1849	75	32	68	93	98	53	1	0
29	Ill. 1926	75	26	74	92	97	48	0	0
30	Ill. 1927	75	28	74	90	98	48	0	0

(Table is continued on next page)

Table 17. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	B — Two-year averages, 1956-1957 — Concluded								
		bu.	perct.	perct.	perct.	perct.	in.	perct.	perct.
31	Ill. 1946	75	28	76	90	96	58	0	0
32	Ill. 1656	74	28	76	84	93	48	0	0
33	Ill. 1942	74	30	75	88	100	54	0	2
34	Ill. 1947	74	29	74	90	100	51	0	0
35	Ill. 1951	74	26	78	82	96	55	0	0
36	U.S. 523W	74	30	73	68	98	50	0	1
37	Ill. 1921	73	29	76	84	96	46	0	0
38	Ill. 1944	73	28	74	84	100	52	0	3
39	Ill. 1856	72	30	70	94	96	52	1	2
40	Ill. 1857	72	32	72	69	94	50	0	2
41	Ill. 1940	72	30	74	91	99	52	0	0
42	Ill. 2246W	71	26	76	90	95	50	1	0
43	Ill. 1943	70	28	74	79	96	45	0	0
44	Ill. 1949	70	29	72	96	98	50	0	0
45	Ill. 1939	67	30	72	98	98	48	0	0
46	U.S. 13	67	28	74	75	94	52	0	0
47	Ill. 1938	66	31	70	94	98	48	0	2
48	Ill. 1950	66	28	76	76	96	48	0	0
49	Ill. 1941	64	31	69	92	98	52	0	0
	Average	77	28	75	87	98	51	0	1
	C — 1957 results (3 replications)								
1	Ill. 1935	88	35	73	87	99	49	0	0
2	Ill. 1919	87	35	74	93	92	48	0	0
3	Ill. 1851	85	40	67	75	99	55	0	0
4	AES 805	84	37	69	93	96	46	0	0
5	Ill. 2235W	81	39	70	57	99	50	0	0
6	Ill. 1913	80	32	73	92	99	48	0	0
7	Ill. 3136	80	39	73	98	99	47	0	0
8	Ill. 1893	79	40	69	88	99	53	0	0
9	Ill. 1948	79	38	73	75	94	51	0	0
10	Ill. 3126	79	37	72	90	97	50	0	0
11	Ill. 1928	78	41	70	90	99	50	0	0
12	Ill. 1945	78	43	74	80	99	46	0	0
13	Ind. 6874	78	38	66	90	99	50	0	0
14	Ill. 1922	77	38	72	91	97	49	0	0
15	Ill. 3129	77	39	70	78	99	50	0	0
16	Ill. 3133	77	39	73	80	99	48	0	0
17	Ill. 3143	77	39	70	33	99	50	0	0
18	Ill. 3148	77	42	72	98	99	48	0	2
19	Ill. 200	76	41	73	71	97	50	0	0
20	Ill. 1889	76	36	70	90	97	46	0	0
21	Ill. 3147	76	40	73	70	99	51	0	0
22	Ill. 1918	75	40	71	92	94	46	0	0
23	Ill. 1946	75	42	73	81	92	56	0	0
24	Mo. 916	75	44	66	90	96	53	0	0
25	Ill. 1951	74	37	74	67	99	53	0	0
26	Ill. 3149	74	39	73	96	94	48	0	0
27	Ill. 1570	73	38	67	92	97	46	0	0
28	Ill. 1657	73	42	69	33	99	48	0	0
29	Ill. 1771	73	43	74	87	91	50	0	0
30	Ill. 1880	73	37	71	88	97	40	0	0
31	Ill. 1909	73	37	72	100	92	46	0	0
32	Ill. 1947	73	43	71	82	99	47	0	0
33	AES 904W	72	47	69	88	99	48	0	0
34	Ill. 1349	72	42	71	85	97	54	0	0
35	Ill. 1660	72	42	66	59	97	48	0	0
36	Ill. 1927	72	40	71	82	99	42	0	0
37	Ill. 1942	72	42	70	77	99	52	0	0
38	Ill. 1539A	71	48	70	80	97	56	0	0
39	GCP 6220	70	43	71	60	99	54	0	0
40	Ill. 1332	70	41	73	93	96	48	0	0
41	U.S. 619W	70	43	70	70	97	44	0	0
42	Ill. 3138	69	40	71	63	99	56	0	0
43	TRF 13W	69	38	71	75	97	40	0	0

(Table is concluded on next page)

Table 17. — Concluded

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	C — 1957 results (3 replications) — Concluded								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
44	Ill. 1940	68	43	69	83	99	50	0	0
45	Ill. 1944	68	41	71	72	99	48	0	2
46	Ill. 3059	68	36	73	75	99	42	0	0
47	Ill. 3145	68	43	69	88	94	46	0	2
48	Ill. 1921	67	42	69	72	94	44	0	0
49	U.S. 523W	67	45	67	48	99	46	0	0
50	Ill. 1926	66	38	69	86	94	44	0	0
51	Ill. 3058	66	34	72	97	99	48	0	0
52	Ill. 3128	66	44	69	65	99	57	0	0
53	Ill. 3150	66	43	67	72	96	46	0	0
54	AES 903W	65	43	63	71	97	44	0	0
55	Ill. 1850	65	45	65	75	99	48	0	0
56	Ill. 1943	65	40	68	61	92	40	0	0
57	Ill. 3139	65	42	67	95	99	47	0	0
58	Ill. 3140	65	45	65	47	99	56	0	0
59	Ill. 1859	64	46	67	52	99	46	0	0
60	Ill. 3130	64	43	71	52	94	50	0	0
61	Ill. 3137	64	44	68	73	97	55	0	0
62	Mo. 804	64	40	68	68	99	52	0	0
63	Ill. 1852	63	45	57	69	91	49	0	0
64	Ill. 1950	63	41	71	53	99	46	0	0
65	Ill. 3141	63	44	71	70	96	55	0	0
66	Mo. 958	62	48	61	44	97	54	0	0
67	Ill. 1949	61	42	65	91	97	49	0	0
68	Ill. 2246W	61	37	68	83	92	48	0	0
69	Mo. 800-3	61	46	61	32	99	50	0	0
70	TRF 9W	61	45	64	67	99	48	0	3
71	Ill. 1656	60	43	69	79	86	40	0	0
72	Ill. 1939	60	41	66	97	96	46	0	0
73	Ill. 3057	60	38	74	78	92	38	0	0
74	Ill. 3135	60	45	65	95	96	47	0	0
75	Ill. 1849	59	45	56	90	96	50	0	0
76	Ill. 3144	59	47	71	74	91	49	0	0
77	Ill. 3127	58	45	66	98	96	48	0	0
78	Ill. 3142	58	44	66	54	94	46	0	0
79	Ill. 3146	58	42	57	82	99	55	0	0
80	Ind. 6615	58	46	61	95	99	46	0	0
81	Ill. 1856	57	45	58	97	97	46	0	0
82	Ill. 1938	57	45	64	90	96	45	0	0
83	Ill. 1857	56	46	65	62	87	46	0	0
84	Ill. 3131	56	45	69	79	92	48	0	0
85	TRF 3W	56	45	63	73	97	50	0	0
86	U.S. 13	55	42	67	61	92	50	0	0
87	TRF 10	54	46	68	84	84	42	0	0
88	Ill. 1941	53	46	57	84	97	52	0	0
89	Ill. 3132	49	47	66	59	84	50	0	0
90	Kan. 2472W	48	44	59	71	96	36	0	0
	Average	68	42	68	77	96	48	0	0

Table 18. — SINGLE AND DOUBLE CROSSES OF ILLINOIS 1851 MATURITY
Tested in South-Central Illinois, 1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut
	A — Single crosses							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	C103×Hy2	94	33	75	95	96	46	0
2	C103×R113	91	30	70	47	97	49	0
3	C103×R153	87	36	71	71	98	49	0
4	C103×R154	97	30	71	88	99	49	0
5	C103×R159	77	36	71	91	97	49	1
6	C103×R166	86	33	76	99	96	40	0
7	C103×R168	88	30	74	84	99	47	0
8	C103×38-11	104	29	72	98	99	53	0
9	C103×Oh7	87	32	69	84	97	46	0
12	Hy2×R113	89	29	71	99	98	48	0
13	Hy2×R153	85	34	75	96	97	44	0
14	Hy2×R154	91	32	78	92	99	47	0
15	Hy2×R159	79	32	73	90	97	49	0
16	Hy2×R166	72	36	77	99	96	38	0
17	Hy2×R168	82	29	77	97	98	44	0
18	Hy2×38-11	93	30	75	93	98	49	0
19	Hy2×Oh7	86	28	78	83	92	47	0
23	R113×R153	73	32	71	88	89	46	0
24	R113×R154	91	29	76	77	99	45	0
25	R113×R159	71	32	71	98	90	47	0
26	R113×R166	72	32	73	78	99	39	0
27	R113×R168	69	29	73	94	98	41	1
28	R113×38-11	87	31	72	81	99	50	0
29	R113×Oh7	74	36	69	46	96	47	0
34	R153×R154	87	31	73	97	99	43	0
35	R153×R159	68	37	67	71	98	49	0
36	R153×R166	68	36	76	76	96	37	0
37	R153×R168	72	34	73	91	99	45	0
38	R153×38-11	76	36	67	59	99	51	0
39	R153×Oh7	70	33	69	93	95	43	0
45	R154×R159	89	30	76	77	97	48	0
46	R154×R166	77	31	80	71	97	42	0
47	R154×R168	87	26	79	98	98	45	0
48	R154×38-11	86	29	76	89	91	52	0
49	R154×Oh7	83	31	77	69	98	44	0
56	R159×R166	70	36	78	99	99	40	0
57	R159×R168	74	30	76	99	95	50	0
58	R159×38-11	90	30	73	84	99	51	0
59	R159×Oh7	70	35	74	82	98	47	0
67	R166×R168	73	29	78	99	99	40	0
68	R166×38-11	71	33	76	95	94	44	0
69	R166×Oh7	71	34	77	99	96	39	0
78	R168×38-11	87	26	78	95	95	49	0
79	R168×Oh7	82	32	79	74	97	44	0
89	38-11×Oh7	78	35	69	64	98	52	0
	Average	81	32	74	86	97	46	0
	B — Double crosses							
93	Ill. 1893	97	32	72	74	99	51	1
92	Ill. 1570	93	30	72	78	99	42	0
91	Ill. 1332	92	29	74	93	99	49	1
90	AES 805	83	31	68	89	95	45	0
	Average	91	30	72	84	98	47	0

Table 19. — INBRED LINES OF ILLINOIS 1851 MATURITY
Tested in South-Central Illinois, 1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	R166	**37**	23	75	**75**	**95**	**20**	**1**
2	Oh7	**32**	33	72	40	**97**	31	**0**
3	R159	26	42	65	35	82	33	**0**
4	R153	25	42	63	48	82	30	**0**
5	R168	24	42	71	**72**	**92**	29	**0**
6	C103	21	34	63	**71**	74	28	**0**
7	38-11	19	42	62	55	**98**	34	**0**
8	R154	19	42	60	40	**91**	33	**0**
9	Hy2	16	42	54	44	**88**	27	**0**
10	R113	12	42	45	34	**93**	26	**0**
	Average	23	38	63	51	89	29	0

Table 20. — TOP AND DOUBLE CROSSES OF ILLINOIS 1851 MATURITY
Tested in Southern Illinois, 1957

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height
	A — Inbred lines crossed with (Mo. 804)						
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*
1	Mo1979	**100**	**16**	80	**99**	**95**	50
2	Mo9108	**100**	**17**	**85**	**99**	**98**	48
3	Mo9294	92	**16**	**84**	**100**	**97**	53
4	Mo11077	89	**16**	**89**	**99**	**99**	42
5	Mo11144	**105**	**16**	**83**	**97**	**98**	**47**
6	Mo11153	**95**	**16**	**85**	**99**	**96**	48
7	Mo11276	75	**16**	80	**99**	**99**	**39**
8	Mo01392	86	**17**	**86**	**100**	**97**	**45**
9	Mo01480	92	**16**	**85**	**96**	**97**	**47**
10	Ks49-55	88	**16**	**83**	**98**	**96**	55
11	Ks54-55	83	**17**	75	**99**	**94**	**44**
12	Ks76-55	**113**	**17**	**91**	**100**	**99**	**40**
13	Ks86-55	81	**16**	**86**	**94**	**98**	**49**
14	Ks133-53	**100**	**16**	**85**	**96**	**98**	**46**
15	Ks159-53	78	**16**	**85**	**100**	**100**	**48**
16	Oh8	85	**17**	**85**	**100**	**96**	**47**
17	R113	78	**15**	**83**	**99**	**98**	**46**
18	R153	92	**16**	**83**	**99**	**96**	**49**
19	R154	93	**15**	**84**	87	84	**42**
20	R159	**104**	**15**	**85**	**98**	**96**	**45**
21	R166	**98**	**16**	**89**	**99**	**97**	**38**
22	R173	84	**15**	**83**	**99**	**99**	**36**
23	CI.90A	**100**	**17**	**85**	**99**	**98**	**47**
24	CI.91B	76	**16**	**84**	**98**	**96**	55
25	NC218	93	**18**	**84**	**100**	**96**	**50**
26	NC220	**111**	**17**	**84**	**99**	**94**	**51**
27	NC222	86	**20**	81	**100**	**97**	**54**
28	NC224	93	**16**	**83**	**100**	**98**	**42**
	Average	92	16	84	98	97	47
	B — Double crosses						
30	Ill. 1851	**119**	**15**	85	**99**	**98**	**50**
29	Mo. 804	**108**	**15**	**84**	**99**	**99**	**48**
	Average	114	15	84	99	98	49

Table 21.—AVERAGE PERFORMANCE OF INBRED LINES AS MEASURED IN SINGLE CROSSES[a]

(Comparisons can be made only within each section)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut	Half-silk
	A — Ill. 1277 maturity (summarized from Table 4)									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*days*
1	B14	119	26	78	99	92	42	0	0	..
2	Oh43	116	31	77	99	95	36	0	0	..
3	M14	109	26	78	94	93	36	0	1	..
4	R113	108	27	73	97	93	41	0	1	..
5	R165	106	30	76	77	92	41	0	1	..
6	L12	105	31	74	91	94	47	0	1	..
7	R172	104	29	74	99	96	41	0	0	..
8	W64A	103	27	75	95	95	36	0	2	..
9	WF9	103	28	75	97	89	39	0	1	..
10	R168	102	26	75	97	93	42	0	1	..
	Average	108	28	76	94	93	40	0	1	..
	B — Ill. 21 maturity (summarized from Table 7)									
1	B14	116	20	81	91	90	39	0	1	..
2	Hy2	108	21	80	78	89	42	0	0	..
3	WF9	108	21	80	86	88	35	0	0	..
4	R165	106	21	80	72	88	36	0	0	..
5	R109B	104	23	79	86	91	38	0	1	..
6	R113	97	20	78	75	87	37	0	0	..
7	R168	96	20	79	90	89	38	0	1	..
8	Oh28	96	20	80	77	84	35	0	1	..
9	R166	92	21	80	64	90	35	0	1	..
10	R172	88	20	78	85	86	37	0	1	..
	Average	101	21	80	80	88	37	0	1	..
	C — Ill. 1570 maturity (summarized from Table 13)									
1	R154	119	17	84	81	94	42	0	2	72
2	Hy2	117	18	83	95	95	44	0	1	73
3	38-11	117	17	84	84	93	43	0	1	74
4	R74	116	19	81	99	94	39	0	1	72
5	R127	116	17	84	88	91	41	0	1	73
6	WF9	116	17	83	98	94	37	0	1	71
7	R71	115	19	81	94	94	41	0	1	74
8	R129	112	18	82	89	91	39	0	1	74
9	R168	106	17	83	97	93	40	0	1	72
10	R113	104	17	82	98	93	40	0	1	72
	Average	114	18	83	92	93	41	0	1	73

[a] Calculated for each inbred by averaging the performance of single crosses in which it was one of the parents.

(Table is concluded on next page)

Table 21. — Concluded

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut	Half-silk
	D — Ill. 1570 maturity (summarized from Table 14)									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*days*
1	R109B	108	17	82	93	94	38	0	3	73
2	R168	107	16	82	96	92	38	0	5	73
3	R112	106	16	84	97	94	34	0	3	73
4	R74	105	18	81	97	94	36	0	2	73
5	R115	104	17	81	91	94	41	0	9	75
6	R96B	101	16	84	89	94	36	0	2	74
7	R114	101	16	82	98	94	38	0	4	74
8	R71	100	18	82	97	95	36	0	4	74
9	R110	98	16	80	94	94	37	0	4	74
10	R113	96	16	82	96	92	37	0	2	73
	Average	103	17	82	95	94	37	0	4	74
	E — Ill. 1851 maturity (summarized from Table 18)									
1	C103	90	32	72	84	98	48	0	0	..
2	R154	88	30	76	84	97	46	0	0	..
3	Hy2	86	31	75	94	97	46	0	0	..
4	38-11	86	31	73	84	97	50	0	0	..
5	R113	80	31	72	79	96	46	0	0	..
6	R168	79	29	76	92	98	45	0	0	..
7	Oh7	78	33	73	77	96	45	0	0	..
8	R153	76	34	71	82	97	45	0	0	..
9	R159	76	33	73	88	97	48	0	0	..
10	R166	73	33	77	91	97	40	0	0	..
	Average	81	32	74	86	97	46	0	0	..

Table 22. — DOUBLE-CROSS HYBRID NUMBERS, PEDIGREES, AND INDEX TO TABLES

(Hybrids that were high yielding and had excellent standability are indicated by table numbers in boldface type)

Hybrid	Pedigree	Table No.
Illinois hybrids		
21	(Hy2 × 187-2) (WF9 × 38-11)	2ABC, 6ABC, 7B, 9ABC
21-2	(HyR × 187R) (WF9TMS × 38-11)	9C
21-3	(WF9 × 38-11) (187-2 × Cl.42A)	9C
21-4	(HyR × 187-2) (WF9TMS × 38-11)	9C
101	(M14 × WF9) (187-2 × W26)	2ABC
200	(WF9 × 38-11) (L317 × K4)	17ABC
274-1	(Hy2 × WF9) (Oh7 × 187-2)	6ABC, **9ABC**
972A-1	(Hy2 × L317) (WF9 × Oh7)	**6ABC, 9ABC**
1091A	(Hy2 × 187-2) (M14 × WF9)	2ABC
1277	(M14 × WF9) (I.205 × 187-2)	2ABC, 3D, 4B, **6ABC**
1279	(M14 × WF9) (A375 × 187-2)	**2ABC**
1280	(M14 × WF9) (Os420 × 187-2)	2ABC, 6ABC
1281	(M14 × WF9) (A374 × A375)	**2ABC**
1289	(M14 × W22) (WF9 × I.205)	**2ABC**
1332	(Hy2 × Oh7) (WF9 × 38-11)	**6ABC, 9ABC, 10,** 11B, 12D, 13B, **17ABC**, 18B
1332-2	(HyR × Oh7R) (WF9TMS × 38-11)	9C
1332-3	(WF9 × 38-11) (Oh7 × Cl.42A)	**9C**
1332-4	(HyR × Oh7) (WF9TMS × 38-11)	9C
1337-1	(HyR × R61) (WF9TMS × 38-11)	9C
1349	(38-11 × Mo940) (K155 × K201)	17ABC
1375	(M14 × WF9) (N6 × Oh51A)	2ABC
1421	(Hy2 × WF9) (P8 × Oh7)	9ABC
1493	(WF9 × I.205) (Oh28 × W22)	2ABC
1511	(Hy2 × WF9) (38-11 × L304A)	**6ABC, 9ABC**
1539A	(38-11 × Cl.7) (K201 × Cl.21E)	17ABC
1555A	(WF9 × Oh51A) (I.224 × Oh28)	**2ABC**, 4B, **6ABC**
1557	(M14 × Oh28) (I.205 × Oh51A)	2ABC
1559B	(M14 × Oh28) (WF9 × Oh51A)	**2ABC**, 3D
1560A	(WF9 × Oh51A) (I.205 × Oh28)	2ABC, 6ABC
1570	(Hy2 × Oh41) (WF9 × 38-11)	6ABC, 9ABC, 10, 13B, **17ABC**, 18B
1570A	(Hy2 × WF9) (38-11 × Oh41)	9C, 10
1570-1	(HyR × Oh41) (WF9TMS × 38-11)	9C, **10**
1570-2	(WF9 × 38-11) (Oh41 × Cl.42A)	9C
1575	(M14 × WF9) (L12 × Oh28)	**2ABC, 6ABC**, 7B
1643	(C103 × 38-11) (Hy2 × Oh7)	9C, 10
1656	(C103 × Hy2) (WF9 × 38-11)	9BC, 17ABC
1656-1	(C103 × HyR) (WF9TMS × 38-11)	**9C**
1656-2	(C103 × Cl.42A) (WF9 × 38-11)	9C
1657	(K4 × Oh7) (K201 × Cl.21E)	17ABC
1660	(K4 × K201) (Oh7 × Cl.21E)	9C, **10**, 17C
1760	(WF9 × 38-11) (Oh29 × Oh45)	6ABC
1767	(Hy2 × Oh45) (WF9 × 38-11)	9ABC
1771	(Oh7B × Cl.7) (T8 × Cl.21E)	**17ABC**
1777	(Hy2 × WF9) (R114 × R116)	9ABC
1813	(C103 × Oh45) (Hy2 × WF9)	**9ABC**
1814	(Hy2 × WF9) (M14 × Oh45)	6ABC
1819	(R2 × WF9) (R61 × Oh43)	6ABC
1831	(WF9 × W146) (K237 × Oh45)	**6ABC**
1849	(C103 × 38-11) (K201 × Cl.21E)	9C, 17ABC
1850	(C103 × Cl.21E) (38-11 × K201)	9C, 17ABC

(Table is continued on next page)

Table 22. — Continued

Hybrid	Pedigree	Table No.
Illinois hybrids (continued)		
1851	(C103 × 38-11) (Oh7 × Cl.21E)	9C, **10**, **17ABC**, 18B
1852	(C103 × Cl.21E) (38-11 × Oh7)	9C, 17ABC
1856	(38-11 × Oh7) (K201 × Cl.21E)	9C, 17ABC
1857	(38-11 × Oh41) (K201 × Cl.21E)	9C, 17BC
1859	(38-11 × Oh7) (Oh41 × Cl.21E)	9C, 17ABC
1861	(M14 × WF9) (I.224 × Oh28)	2ABC
1862 (Iowa 4779)	(M14 × WF9) (Oh43 × Oh51A)	**2ABC**
1863	(M14 × WF9) (I.205 × Oh43)	**2ABC**, 4B, **6ABC**
1864	(M14 × WF9) (Oh43 × W22)	**2ABC**
1866	(M14 × WF9) (Oh26A × Oh45)	**2ABC**
1868	(C103 × Oh43) (Hy2 × WF9)	**6ABC**
1873	(C103 × M14) (R75 × Oh43)	**6ABC**
1875	(C103 × 38-11) (Hy2 × WF9)	**6ABC**
1880	(R103 × R104) (WF9 × 38-11)	**9ABC**, **10**, 17C
1889	(C103 × Oh45) (38-11 × Oh29)	**9ABC**, **17BC**
1890	(C103 × Oh45) (R75 × 38-11)	**9ABC**
1893	(C103 × 38-11) (Oh7B × Oh29)	**9BC**, 13B, **17ABC**, 18B
1902	(R138 × R142) (R139 × R141)	2BC, 6BC, 9BC
1909	(R130 × R151) (WF9 × 38-11)	9ABC, **17ABC**
1912	(R151 × R156) (WF9 × 38-11)	6ABC, 9ABC
1913	(R151 × R154) (WF9 × 38-11)	6ABC, 9ABC, 10, **17ABC**
1916	(R130 × R154) (WF9 × 38-11)	6ABC, **9ABC**
1917	(R153 × R154) (WF9 × 38-11)	6ABC
1918	(R151 × R153) (WF9 × 38-11)	**9ABC**, **10**, **17ABC**
1919	(R130 × R156) (WF9 × 38-11)	6ABC, 9ABC, 10, **17ABC**
1921	(R71 × R105) (WF9 × 38-11)	**6BC**, **9BC**, 17BC
1922	(Hy2 × WF9) (R71 × R105)	6BC, 9BC, **17BC**
1925	(Hy2 × WF9) (R71 × R113)	9C
1926	(R71A × R74) (R75 × 38-11)	6BC, 9BC, 17BC
1927	(Hy2 × WF9) (R71A × R74)	6BC, **9BC**, 17BC
1928	(R75 × 38-11) (R98 × R105)	**6BC**, **9BC**, **17BC**
1930	(Hy2 × WF9) (R98 × R105)	6BC
1935	(C103 × R101) (R75 × 38-11)	9BC, **17BC**
1936	(Hy2 × WF9) (M14 × B14)	**2ABC**, 6BC, 7B
1938	(R71 × R105) (R98 × R153)	9C, 10, 17BC
1939	(R71 × R98) (R105 × R153)	9C, 10, 17BC
1940	(R71 × R153) (R98 × R105)	9C, 10, 17BC
1941	(R98 × R105) (R130 × R153)	9C, 10, 17BC
1942	(R98 × R153) (R105 × R130)	9C, **10**, 17BC
1943	(R71 × R105) (R153 × R154)	9C, **10**, 17BC
1944	(R71 × R98) (R130 × R153)	9C, **10**, 17BC
1945	(R98 × R151) (R105 × R130)	9C, **10**, **17BC**
1946	(R98 × R155) (R105 × R130)	**9C**, **10**, **17BC**
1947	(R105 × R130) (R153 × R155)	9C, **10**, 17BC
1948	(R105 × R151) (R153 × R154)	9C, **10**, **17BC**
1949	(R71 × R105) (R151 × R153)	9C, 10, 17BC
1950	(R71 × R105) (R153 × R155)	9C, 10, 17BC
1951	(R71 × R130) (R98 × R155)	9C, 10, 17BC
1952	(M14 × B14) (A545 × W64A)	**2BC**
1953	(M14 × A223) (B14 × W64A)	**2BC**
1954	(M14 × A297) (B14 × A545)	2BC
1955	(M14 × A297) (B14 × W64A)	**2BC**
1956	(M14 × A545) (B14 × A239)	2BC
1957	(M14 × A545) (B14 × W64A)	**2BC**
1958	(M14 × Oh26A) (B14 × A545)	**2BC**

(Table is continued on next page)

Table 22. — Continued

Hybrid	Pedigree	Table No.
Illinois hybrids (continued)		
1959 (Ind. 6225)	(M14 × W64A) (B14 × A297)	2BC
1960	(M14 × W64A) (B14 × A545)	**2BC**
1961	(B14 × A545) (A239 × W64A)	**2BC**
1962	(B14 × A545) (A297 × W64A)	**2BC**
1963	(B14 × A545) (Oh26A × W64A)	2BC
1966	(R163 × R165) (WF9 × B14)	2C, **6BC**
1967	(R163 × R168) (WF9 × B14)	6BC
1968	(R163 × R169) (WF9 × B14)	2C, **6BC**
1969	(R165 × R168) (WF9 × B14)	2C, 3D, **6BC**
1970	(R165 × R169) (WF9 × B14)	2C, 6BC
1971	(R168 × R169) (WF9 × B14)	2C, **6BC**
1972	(R163 × R165) (R168 × R169)	6BC, 9BC
1973	(R163 × R168) (R165 × R169)	6BC, 9BC
1974	(R163 × R169) (R165 × R168)	9BC
1975	(WF9 × Cl.38B) (Cl.42A × Cl.317B)	9BC
1976	(38-11 × Oh41) (Oh7 × Cl.21E)	9C, 10
1977	(WF9 × 38-11) (Oh29 × Oh41)	9C, 10
1978	(C103 × 38-11) (WF9 × Oh7A)	9C, 10
1980	(C103 × B14) (WF9 × 38-11)	9C, **10**
1981	(WF9 × 38-11) (Oh7 × Cl.21E)	**9C, 10**
1982	(C103 × 38-11) (WF9 × Cl.21E)	9C, 10
1983	(Hy2 × B14) (WF9 × 38-11)	9C, **10**
1984	(Hy2 × WF9) (Oh29 × Oh41)	9C, 10
1985	(Hy2 × WF9) (R61 × Oh41)	9C, 10
1986	(Hy2 × WF9) (Oh43 × 187-2)	9C, 10
1987	(C103 × B10) (Hy2 × WF9)	9C, 10
1988	(C103 × R61) (Hy2 × WF9)	9C, 10
1989	(Hy2 × WF9) (M14 × Oh29)	9C, 10
1990	(Hy2 × WF9) (M14 × Oh43)	9C, 10
1991	(C103 × B10) (WF9 × Oh7A)	9C, 10
1992	(C103 × B14) (WF9 × Oh7A)	9C, **10**
1993	(WF9 × Oh41) (B10 × B14)	9C, 10
1994	(C103 × WF9) (Oh29 × Oh41)	9C, **10**
1995	(Hy2 × Oh7) (38-11 × Oh41)	9C, 10
1996	(C103 × B14) (Hy2 × Oh7)	9C, **10**
1997	(C103 × Oh41) (Hy2 × Oh7)	9C, **10**
1998	(M14 × 187-2) (WF9 × B6)	2C
1999	(C103 × Oh43) (M14 × WF9)	**2C**
3005	(M14 × WF9) (B14 × W64A)	2C
3006	(M14 × W64A) (WF9 × B14)	2C
3007	(R161 × WF9) (R169 × B14)	**2C**
3008	(R165 × WF9) (R168 × B14)	**2C**
3009	(B14 × B21) (A297 × W64A)	**2C**
3010	(C103 × N24) (WF9 × B14)	**6C**
3011	(C103 × Oh43) (WF9 × B14)	6C
3012	(C103 × B37) (Oh28 × Oh43)	6C
3013	(C103 × Oh41) (Hy2 × WF9)	6C
3014	(Hy2 × WF9) (B14 × Oh41)	6C
3015A	(WF9 × B14) (B37 × N24)	6C
3016	(WF9 × B14) (B37 × Oh43)	2C, 6C
3017	(WF9 × B14) (B37 × Oh45)	**6C**
3018	(WF9 × B14) (B38 × N24)	6C
3019 (Iowa 4880)	(WF9 × B14) (B38 × Oh43)	**6C**
3020	(WF9 × B14) (N6 × Oh43)	**6C**

(Table is continued on next page)

Table 22. — Continued

Hybrid	Pedigree	Table No.
Illinois hybrids (continued)		
3021	(WF9 × B14) (N6 × Oh45)	**6C**
3022	(WF9 × B14) (N22A × Oh43)	**6C**
3023A	(WF9 × B14) (N24 × Oh43)	**6C**
3024	(WF9 × B14) (N24 × Oh422)	6C
3025	(WF9 × B14) (N610 × Oh43)	6C
3026	(WF9 × B14) (N610 × Oh45)	**6C**
3027	(WF9 × B14) (N611 × Oh43)	6C
3029	(WF9 × B14) (Oh43 × Oh45)	**6C**
3030	(WF9 × B14) (Oh43 × Oh422)	**6C**
3032	(WF9 × B38) (Oh28 × Oh43)	**6C**
3033	(WF9 × B40) (Oh28 × Oh43)	6C
3034	(WF9 × N6) (Oh28 × Oh43)	6C
3035	(WF9 × N613) (Oh28 × Oh43)	**6C**
3036	(B14 × N6) (Oh28 × Oh43)	6C
3037	(B14 × B40) (Oh28 × Oh43)	6C
3038	(B37 × Oh26A) (Oh28 × Oh43)	6C
3039	(B37 × B38) (Oh28 × Oh43)	**6C**
3040	(B35 × B40) (Oh28 × Oh43)	6C
3041	(WF9 × B35) (Oh28 × Oh43)	6C
3042	(WF9 × B14) (B40 × Oh45)	**6C**
3043	(R71 × R109B) (WF9 × B14)	**2C, 6C**
3044	(R109B × R113) (WF9 × B14)	2C, 6C
3045	(R109B × R168) (WF9 × B14)	**2C, 6C**
3046	(R113 × R168) (WF9 × B14)	**2C**, 6C
3047	(R71 × R113) (WF9 × B14)	2C, 6C
3048	(R71 × R168) (WF9 × B14)	2C, 6C
3049	(Hy2 × WF9) (R71 × R109B)	**9C**
3050	(Hy2 × WF9) (R109B × R113)	9C
3051	(Hy2 × WF9) (R109B × R168)	9C
3052	(Hy2 × WF9) (R113 × R168)	9C
3054	(R109B × R113) (WF9 × 38-11)	9C
3055	(R109B × R168) (WF9 × 38-11)	9C
3056	(R113 × R168) (WF9 × 38-11)	9C
3057	(R71 × R109B) (R113 × R168)	2C, 3D, 9C, 14B, 17C
3058	(R71 × R113) (R109B × R168)	3D, 9C, 17C
3059	(R71 × R168) (R109B × R113)	3D, 9C, 14B, 17C
3060	(R129 × R159) (R166 × R168)	9C
3061	(R129 × R159) (R168 × R169)	9C
3062	(R159 × R161) (R168 × R169)	9C
3063	(R159 × R163) (R165 × R168)	9C
3064	(R159 × R163) (R166 × R168)	9C
3065	(R159 × R163) (R168 × R169)	9C
3066	(R159 × R168) (R163 × R165)	9C
3067	(R159 × R169) (R161 × R168)	9C
3069	(R71 × R101) (R105 × R129)	9C
3070	(R71 × R105) (R163 × R168)	9C
3071	(R71 × R129) (R101 × R105)	9C
3072	(R71 × R129) (R105 × R168)	9C
3073	(R71 × R163) (R105 × R168)	9C
3074	(R71 × R168) (R105 × R163)	9C
3075	(Hy2 × WF9) (R95 × R101)	9C
3076	(Hy2 × WF9) (R96 × R101)	9C
3077	(Hy2 × WF9) (R96 × B36)	9C
3078	(Hy2 × WF9) (R96 × Oh451)	9C
3079	(Hy2 × WF9) (R101 × 38-11)	9C

(Table is continued on next page)

Table 22. — Continued

Hybrid	Pedigree	Table No.
Illinois hybrids (continued)		
3080	(Hy2 × WF9) (R101 × Oh451)	9C
3081	(Hy2 × WF9) (R109B × R127)	9C
3082	(Hy2 × WF9) (R109B × B38)	9C
3083	(Hy2 × WF9) (R109B × K720)	**9C**
3084	(Hy2 × WF9) (R127 × B38)	9C
3085	(Hy2 × WF9) (R127 × L317)	9C
3086	(Hy2 × WF9) (R127 × K720)	9C
3087	(Hy2 × WF9) (R127 × K721)	9C
3088	(Hy2 × WF9) (R127 × N25)	9C
3089	(Hy2 × WF9) (38-11 × Oh451)	9C
3090	(Hy2 × WF9) (B36 × Oh451)	9C
3091	(Hy2 × WF9) (B38 × L317)	9C
3092	(Hy2 × WF9) (B38 × K720)	**9C**
3093	(Hy2 × WF9) (B38 × N25)	**9C**
3094	(Hy2 × WF9) (B38 × N35)	9C
3095	(Hy2 × WF9) (L317 × K720)	9C
3096	(R74 × R101) (R129 × WF9)	9C
3097	(R95 × R101) (WF9 × 38-11)	9C
3098	(R98 × R101) (WF9 × 38-11)	9C
3100	(R101 × N12) (WF9 × 38-11)	9C
3101	(R101 × N23) (WF9 × 38-11)	9C
3102	(R101 × Oh41) (WF9 × 38-11)	9C
3103	(R109B × R154) (WF9 × 38-11)	9C
3104	(R109B × N25) (WF9 × 38-11)	9C
3105	(R129 × R154) (WF9 × 38-11)	9C
3106	(R129 × N25) (WF9 × 38-11)	9C
3107	(R154 × B38) (WF9 × 38-11)	**9C**
3108	(R154 × K721) (WF9 × 38-11)	9C
3109	(R154 × K722) (WF9 × 38-11)	9C
3110	(R154 × N25) (WF9 × 38-11)	9C
3111	(R159 × R163) (R168 × WF9)	9C
3112	(WF9 × 38-11) (B38 × N25)	9C
3113	(WF9 × 38-11) (K722 × N25)	9C
3114	(Hy2 × WF9) (R101 × Cl.38B)	9C
3115	(R127 × N35) (WF9 × 38-11)	9C
3116	(R127 × K721) (WF9 × 38-11)	9C
3117	(R127 × R154) (WF9 × 38-11)	9C
3118	(Hy2 × WF9) (38-11 × B38)	9C
3119	(Hy2 × WF9) (R154 × B38)	9C
3120	(Hy2 × WF9) (R127 × 38-11)	9C
3121	(Hy2 × WF9) (R127 × R154)	9C
3124	(Hy2 × WF9) (R71 × R168)	6C, **9C**
3125	(R71 × R168) (WF9 × 38-11)	9C
3126	(R101 × Mo3) (38-11 × K201)	**17C**
3127	(38-11 × K201) (Mo3 × Mo8)	17C
3128	(38-11 × K201) (Mo3 × Mo9)	17C
3129	(R101 × Mo8) (38-11 × K201)	**17C**
3130	(R101 × Mo9) (38-11 × K201)	17C
3131	(R129 × Mo3) (38-11 × K201)	17C
3132	(38-11 × K201) (Mo8 × Mo9)	17C
3133	(R127 × Mo3) (38-11 × K201)	**17C**
3135	(R71A × Mo3) (38-11 × K201)	17C
3136	(R74 × R101) (38-11 × K201)	**17C**
3137	(38-11 × K201) (Mo4 × Mo9)	17C

(Table is continued on next page)

Table 22. — Continued

Hybrid	Pedigree	Table No.
Illinois hybrids (concluded)		
3138	(R129 × Mo9) (38-11 × K201)	17C
3139	(R71A × R101) (38-11 × K201)	17C
3140	(38-11 × K201) (Ky126 × Cl.21E)	17C
3141	(38-11 × K201) (K763 × Ky126)	17C
3142	(38-11 × K201) (Ky126 × Ok11)	17C
3143	(38-11 × K201) (Ky126 × Oh7B)	17C
3144	(38-11 × K201) (K711 × Ok11)	17C
3145	(R129 × Mo9150) (38-11 × K201)	17C
3146	(R118 × Mo9150) (38-11 × K201)	17C
3147	(R118 × R129) (38-11 × K201)	17C
3148	(R74 × Mo9150) (38-11 × K201)	**17C**
3149	(R74 × R129) (38-11 × K201)	**17C**
3150	(R74 × R118) (38-11 × K201)	17C
3151	(WF9 × 38-11) (B14 × Oh41)	9C
3152	(M14 × WF9) (B14 × Oh43)	**2C**
3159	(M14 × 187-2) (WF9 × Oh43)	3D
3160	(WF9 × Oh7) (B14 × Oh43)	**6C**
3169C	(WF9 × B37) (Oh28 × Oh43)	6C
2235W	(H21 × K64) (33-16 × Mo2RF)	17C
2246W	(R144 × R145) (R148 × R149)	9C, 10, 17ABC
2247W	(R144 × R145) (R146 × R148)	2ABC, 6ABC
6016	(R78 × K4) (R84 × 38-11)	**11A**
6021	(R75 × R76) (R84 × K4)	**11A**
6052	(R78 × 38-11) (R84 × K4)	**11A**
6062	(R76 × K4) (R78 × R84)	**11A**
6075	(R75 × R83) (R78 × R87)	11A
6076	(R76 × R78) (R87 × R117)	11A
6084	(R78 × R117) (R84 × R87)	11A
Miscellaneous hybrids		
AES 510	(WF9 × W22) (H19 × B9)	2ABC
AES 610	(M14 × A73) (Oh43 × Oh51A)	2ABC, 3D, 4B, 14B
AES 702 (Ill. 1790)	(C103 × M14) (Hy2 × WF9)	**2ABC**, **6**ABC, 7B, **9BC**, 14B
AES 805 (Ill. 1770)	(C103 × Oh45) (WF9 × 38-11)	**6ABC**, **9ABC**, 13B, 14B, **17ABC**, 18B
AES 806	(Hy × WF9) (N6 × N15)	**6ABC**, **9ABC**
AES 808	(WF9 × 38-11) (H14 × Oh43)	9ABC
AES 903W	(H28 × K55) (H30 × K41)	17ABC
AES 904W	(K64 × Mo22) (T111 × T115)	**17AB**C
A-101	(Hy2 × Oh7) (88-4A × SS101)	9C
A-102	(Hy2 × Oh7) (128-4A × SS101)	9C
GCP 6220	(WF9 × 38-11) (O-1265 × GT107)	9C, 17C
Ind. 4655	(C103 × Oh43) (P8 × WF9)	9BC
Ind. 4656	(P8 × WF9) (H14 × Oh43)	9BC
Ind. 5409	(M14 × B14) (WF9 × W22)	2BC
Ind. 5655	(WF9 × 38-11R) (Oh7B × Oh45)	**9BC**
Ind. 6225 (Ill. 1959)	(M14 × W64A) (B14 × A297)	**2C**
Ind. 6615	(H49 × H55) (H53 × B14)	17C
Ind. 6623	(C103 × H53) (WF9 × H52)	9C
Ind. 6833	(WF9 × H52) (H54 × H60)	9C
Ind. 6874	(H49 × H52) (H59 × H60)	**17C**
Iowa 4297	(M14 × 187-2) (WF9 × I.205)	6ABC
Iowa 4757	(M14 × WF9) (B16 × Oh51A)	2BC
Iowa 4779 (Ill. 1862)	(M14 × WF9) (Oh43 × Oh51A)	2BC
Iowa 4809	(M14 × WF9) (B14 × B37)	**6B**C
Iowa 4879 (Ill. 3016A)	(WF9 × Oh43) (B14 × B37)	6BC

(Table is concluded on next page)

Table 22. — Concluded

Hybrid	Pedigree	Table No.
Miscellaneous hybrids (concluded)		
Iowa 4880 (Ill. 3019)	(WF9 × Oh43) (B14 × B38)	**6C**
Iowa 4906	(WF9 × B7) (B14 × B39)	9C
Iowa 4907	(WF9 × B7) (B10 × B14)	9C
Iowa 4912 (Ill. 3014A)	(Hy × Oh41) (WF9 × B14)	9BC
ISP 2	(C103 × Oh45) (M14 × WF9)	2ABC
Kan. 1884	(Hy × R59) (N6 × Oh28)	9C
Kan. 2472W	(H30 × K41) (K55 × K697)	17C
Mich. 52-25	(M14 × WF9) (MS212 × Oh51A)	2BC
Mich. 53-151	(WF9 × MS209) (MS106 × MS107)	2BC
Mich. 54-70	(WF9 × MS107) (MS208 × Oh43)	2C
Mich. 54-116	(WF9 × MS120) (MS211 × Oh43)	2C
Minn. CB4603 (Ill. 3002)	(B14 × A297) (A295 × W64A)	2BC
Minn. CB4621	(B14 × A239) (A295 × W64A)	2BC
Mo. 800-3	(K201 × T202) (Mo9284 × Cl.21E)	17C
Mo. 804 (Ill. 1445)	(38-11 × Cl.21E) (K4 × Cl.7)	17ABC, 18B
Mo. 916	(Mo9108 × Cl.21E) (Oh7B × Oh29)	**17BC**
Mo. 958	(B41 × Oh7A) (Mo3 × Cl.21E)	17C
Mo. 4060AW	(H30 × K41) (Mo9187W × N72)	**9BC**
Nebr. 1924	(Hy × WF9) (B14 × N6)	**6BC**
Ohio M15	(A × W23) (Oh26 × Oh51)	2C
Ohio K24	(WF9 × Oh51A) (Oh33 × Oh40B)	2ABC
Ohio 5317 (CB4726A) (Ill. 3028)	(WF9 × B14) (Oh28 × Oh43)	6BC
TRF 3W	(4413-2 × 4417-1) (K55 × K64)	17C
TRF 9W	(4413-2 × 4417-1) (K6 × K55)	17C
TRF 10	(4401-19 × 4408-6) (4409-6 × Oh29)	17C
TRF 13W	(4413-2 × 4908-2) (K55 × 4914-2)	17C
U.S. 13	(Hy × L317) (WF9 × 38-11)	9ABC, 11B, 12D, 17ABC
U.S. 523W	(K55 × K64) (Ky27 × Ky49)	17ABC
U.S. 619W	(K55 × Cl.64) (Ky27 × Ky49)	17C

Urbana, Illinois January, 1958

Publications in the Bulletin series report the results of investigations made or sponsored by the Experiment Station

5M—1-58—64606